

STAFFORDSHIRE COUNTY COUNCIL



Annual Report

OF THE

MEDICAL OFFICER OF HEALTH

W. D. CARRUTHERS, M.B., D.P.H.,

FOR THE YEAR 1937.

1938.

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STAFFORDSHIRE COUNTY COUNCIL.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH.

PRELIMINARY NOTE.

The Annual Report for 1937 has been prepared, as in previous years, in compliance with the recommendations of the Ministry of Health, and deals particularly with the services directly administered by the County Council. It also contains, however, information relating to some of the activities of the District Sanitary Authorities, whose reports should be referred to for detailed particulars of the work undertaken in the respective areas.

From the public health point of view, the year has been a satisfactory one. As on former occasions, it will be noted that the birth rate is higher and the death rate lower than those of England and Wales as a whole. In the early months of the year there was an outbreak of influenza, and the seriousness can be assessed by the statement that there were nearly three times the number of deaths from this disease than in 1936. A widespread outbreak of bacillary dysentery occurred throughout the Country in the autumn, and many cases were observed in Staffordshire, but fortunately, the disease was mild in character. Apart from these instances, there was no serious outbreak of infectious disease. Again this year, it will be noted that the percentage of deaths in persons of both sexes before the age of 45 has steadily fallen since 1920. This means that, inevitably, we must expect an increase in the degenerative diseases that particularly attack persons past the active period of life.

A further development of the Maternity and Child Welfare Scheme occurred in 1937. Four new Infant Welfare Centres and four special Ante-natal Clinics were opened, whilst the volume of the work from the Dental Scheme was double that of the previous year.

An outstanding feature of the year was the passing of the Midwives Act, whereby a salaried service of midwives must be provided in every area. This Act should do much to improve the conditions under which midwives work and their usefulness to the community, and many hope that, indirectly, it will also beneficially affect the general nursing

provision in the Country. The County Council arranged with the County Nursing Association, through their affiliated local Nursing Associations, and with certain non-affiliated Associations, to provide this service, and new Nursing Associations have been established in a few areas where they did not exist. As these Associations undertake general nursing as well as midwifery, this will prove a great gain to the communities concerned.

The County Bacteriological Laboratory has continued to show what an essential part it takes in the public health work of the County. Compared with the previous year, there was a considerable increase in the output of work, and the varied character of the investigations undertaken demonstrates how greatly it is valued by Medical Officers of Health, Hospital Authorities and Medical Practitioners. Another important section is the medico-legal work required by the Police and Coroners. Full details of these various activities will be found in the Report.

A further increase in the work of the Chemical Laboratory will also be noted. Much advantage has been taken by Local Authorities of the facilities offered in investigations of water supplies, and the Laboratory has been of great service in the examination of sewage effluents and river waters. In addition, there has been an increase in the number of samples under the Food and Drugs Act. The co-operation with the Bacteriological Laboratory in connection with medico-legal work has been maintained.

The last *full* year's account of the working of the Veterinary Department will be found in the Report, which shows what active steps are being taken to safeguard the milk supply. A feature of the work has always been to render assistance and advice to farmers to help them in reducing the incidence of diseases that specially attack milch cows, and this is referred to in detail. It must be a source of much gratification to many that the Ministry of Agriculture, now that they have taken over this service, have arranged for the Chief Veterinary Officer and his Assistants to continue their duties in this County.

Lastly, I should like to draw attention to a summary of the work of District Councils in connection with water supplies and improvements or developments in the sewerage and sewage disposal arrangements of their areas, for it shows the large amount of work undertaken in the primary public health functions of these bodies.

PUBLIC HEALTH OFFICERS

(a) *Medical.*

County Medical Officer of Health	...	...	...	1
Deputy County Medical Officer of Health	...	...	...	1

School, Maternity and Child Welfare and Ante-natal Work :

Senior Assistant Medical Officer (Whole-time)	...	...	...	1
† Assistant Medical Officers (Whole-time)	...	...	...	19
Assistant Medical Officers (Part-time)	...	...	...	2
County Ophthalmic Surgeon (Whole-time)	...	...	...	1
County Dental Officer (Whole-time)	...	...	...	1
Assistant Dental Surgeons (Whole-time)	*15

General Practitioners (Maternity and Child Welfare only)	5
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Consultants under Puerperal Pyrexia Regulations and Consulting Obstetricians	7
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Venereal Disease Medical Officer (North Staffs.)	1
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District Medical Officers under Poor Law Acts	81
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Public Vaccinators	81
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County Bacteriological and Pathological Laboratory :

Medical Staff	3
Assistants and Staff	18

Standon Hall Orthopædic Hospital :

Medical Staff (House Surgeon)	...	...	...	...	...	...	...	1
Medical Staff (Visiting Surgeons)	...	...	...	...	...	...	...	2
Nursing Staff	...	...	...	...	...	...	...	41
Teaching Staff	...	...	...	...	...	...	...	4

(b) Others.

County Chemical Laboratory :

Analyst	...	...	...	...	...	...	1
Deputy Analyst	...	...	...	...	...	...	1
Assistants and Staff	...	...	...	...	...	...	8

‡ Veterinary Staff :

Chief Veterinary Officer	...	...	...	...	...	1
Assistant Veterinary Officers	...	...	...	...	...	8
Sanitary Inspector and Assistant	...	...	...	...	...	2
Food and Drugs Inspectors	...	...	...	...	...	7
Vaccination Officers	...	...	...	...	...	32
Dental Mechanic	...	...	...	...	...	1

School, Maternity and Child Welfare and Ante-natal Work, and Tuberculosis Health Visiting :

Inspectors of Health Visitors (also act as Inspectors of Midwives)	...	...	...	...	...	3
Health Visitor Lecturers on Mothercraft	...	...	...	...	...	2
Health Visitors (Whole-time)	...	...	...	...	...	55
Health Visitors (Part-time)	...	...	...	...	...	39
School Nurses (Whole-time)	...	...	...	...	...	2
Dental Nurses	...	...	...	...	...	*16

† Ten Whole-time Assistant Medical Officers hold appointments as District Medical Officers of Health.

‡ The veterinary work in the County Borough of Walsall is undertaken by the County Staff.

* Includes one for Maternity and Child Welfare and one supplied to a Part III. Local Authority. The dental treatment for the Public Assistance Committee, and the Staffordshire, Wolverhampton and Dudley Joint Board for Tuberculosis, is also performed by the County Dental Staff.

. CHANGES DURING 1937.

Assistant Medical Officers :—

R. A. Leader, L.R.C.P., M.R.C.S., D.P.H.,—Additional appointment (14-4-37).

W. D. T. Brunyate, M.A., M.D., Ch.B., D.P.H., *vice* M. L. Sutcliffe (24-5-37).

J. J. Murray, M.B., Ch.B., B.A.O., D.P.H., *vice* S. Knight (14-6-37).

Consultant under Puerperal Pyrexia Regulations :—

C. E. M. Blumer, F.R.C.S., M.B., Ch.B., *vice* F. M. Blumer (10-4-37).

Public Vaccinators :—

District No. 7 : * D. Ezekiel, M.R.C.S., L.R.C.P., *vice* F. H. Hawley (1-4-37).

District No. 18 : * P. Wallice, M.R.C.S., L.R.C.P., *vice* F. L. Lewis (1-12-37).

District No. 29 : * G. R. S. Stewart, M.B., Ch.B., *vice* C. Reid (1-4-37).

District No. 32 : * R. M. Barrow, M.B., B.S., *vice* A. C. Fry (1-4-37).

District No. 61 : D. G. Lloyd, M.R.C.S., L.R.C.P., *vice* N. V. Williams (23-7-37).

District No. 65 : G. W. Curtis, M.R.C.S., L.R.C.P., *vice* J. N. McTurk (28-7-37).

District No. 87 : R. W. Rae, M.B., Ch.B., *vice* A. C. Fry (1-4-37).

* Also appointed as District Medical Officers.

Second Assistant Bacteriologist and Pathologist :—

J. L. Edwards, M.A., M.B., Ch.B., M.R.C.P.—Additional appointment (1-6-37).

Assistant Veterinary Officer :—

G. B. Brook, D.Sc. (Vety.), M.R.C.V.S., *vice* W. M. Cooper Maitland (15-3-37).

Health Visitors :—

Miss M. A. Davies—Additional Appointment (1-1-37).

Miss G. A. Podmore *vice* Miss S. M. Weeks (26-5-37).

Miss E. Dickenson *vice* Miss W. Walsh (1-6-37).

Miss W. A. Ratcliffe *vice* Miss E. A. Rose (20-9-37).

Each of the above-named Health Visitors holds the Health Visitor's Certificate (R.S.I.), the Certificate of the Central Midwives Board and is a fully trained nurse.

SUMMARY OF STATISTICS.

1.—GENERAL STATISTICS.

Area of Administrative County	...	...	(acres)	685,503
Population of Area (estimated mid. 1937)	...	...		741,900
Rateable Value at 1st April, 1937	...	...	£	2,965,982
Estimated net product of a penny rate 1937-38	£	11,347	1s. 8d.	

2.—EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

	Total.	M.	F.	
Live (Legitimate) ...	12,555	6,517	6,038	
Births (Illegitimate) ...	330	162	168	Birth-rate 17.4
Stillbirths ...	600	316	284	Rate per 1,000 total births 44.5
Deaths ...	8,868	4,793	4,075	Death-rate 12.0

Deaths from Puerperal Causes :—

	Deaths.	Rate per 1,000 total births.
Puerperal sepsis ...	15	1.1
Other puerperal causes ...	33	2.4
Total ...	48	3.6

Death Rate of Infants under one year of age :—

All infants per 1,000 live births	...	61
Legitimate infants per 1,000 legitimate live births	...	60
Illegitimate infants per 1,000 illegitimate live births	...	91
Deaths from Cancer (all ages)	...	989
Deaths from Measles (all ages)	...	36
Deaths from Whooping Cough (all ages)	...	44
Deaths from Diarrhœa (under two years of age)	...	55

AREA AND POPULATION.

This year, as in 1936, there has been no alteration in the area of the Administrative County.

The population figures of the various districts used in calculating the birth and death rates have again been supplied by the Registrar-General.

As all deaths of persons serving with H.M. Forces are now allocated to their area of residence in the same manner as civilian deaths, the estimates of resident population as supplied by the Registrar-General have been used for the calculation of birth and death rates.

In 1934 the Registrar-General supplied Areal Comparability Factors for adjusting local death rates, based on the average mortality rates experienced in England and Wales during the three years 1930-2, divided into eleven sex-age groups, which have been applied to the corresponding sex-age groups in the 1931 census population of every Borough, Urban District, and Rural District in the Country.

The rate obtained when the crude death rate is multiplied by this factor is then comparable, from a mortality point of view, with the crude death rate of the Country as a whole or with the mortality of any other local area, the crude death rate of which has been similarly modified with its own factor for the purpose.

Strictly speaking, the adjusting factor applied only to death rates experienced in the year 1931, but population constitutions change relatively slowly, and, save in exceptional circumstances, the factor may be used for practical purposes until fresh population constitutions are available from the next census.

The rate for each district, adjusted by applying the Areal Comparability Factor, is shown in the table at the end of the Report.

In the following table the census population of the Administrative County for 1931, and the estimated population to the middle of 1937, are set forth:—

	Census, 1931.	Estimated Population as at middle of 1937.
Urban	490,632	*562,800
Rural	212,622	*179,100
Totals	†703,254	741,900

*The increase in the population of the Urban Districts, and the decrease in that of the Rural Districts, is due to the changes in Sanitary Districts and boundaries which took place on the 1st April, 1934, under the Staffordshire Review Order, 1934.

†The census population of the Administrative County as constituted at the 31st December, 1937, is less than this figure by 2,902. The estimated population in the portion of the County area transferred to the County Borough of Wolverhampton on the 1st April, 1933, was 5,419, but this decrease was partly neutralized by the fact that on the 1st April, 1932, a portion of the County of Warwick, with an estimated population of 2,517, was added to the Administrative County.

Births.

The live births registered in the Administrative County numbered 12,885, compared with 12,441 the previous year, the number in the Urban Districts being 10,066 and in the Rural Districts 2,819.

Stillbirths. There were 600 stillbirths registered during the year, of which 466 were in Urban and 134 in Rural Districts. The stillbirth rate per thousand of the population for the combined Urban and Rural Districts is 0.81. During the same period the rate for England and Wales was 0.60, and for the large towns in England 0.67.

The mean birth-rates in the whole Administrative County and in the Urban and Rural Districts, respectively, for nine quinquennial periods and for the past four years are shown in the following table, in which corresponding rates for England and Wales are included.

DISTRICTS		LIVE BIRTH-RATE PER 1,000 OF POPULATION												
		5 yrs 1889- 1893	5 yrs 1894- 1898	5 yrs 1899- 1903	5 yrs 1904- 1908	5 yrs 1909- 1913	5 yrs 1914- 1918	5 yrs 1919- 1923	5 yrs 1924- 1928	5 yrs 1929- 1933	1934	1935	1936	1937
{	Combined Urban & Rural	33.6	33.2	32.5	30.3	27.8	24.0	24.1	20.2	17.6	16.6	16.8	17.0	17.4
	Urban	35.5	34.7	33.6	31.5	29.2	25.0	25.0	20.7	18.1	16.9	17.3	17.5	17.9
	Rural	30.2	30.5	30.2	27.0	24.4	21.6	22.0	19.0	16.6	15.8	15.1	15.5	15.7
England and Wales		30.8	29.7	28.7	26.9	24.5	20.4	21.3	17.8	15.6	14.8	14.7	14.8	14.9
Large Towns in England		31.5	30.7	29.7	27.8	25.2	*20.9	22.0	18.2	15.8	14.7	14.8	14.9	14.9

* 4 years.

Deaths.

The number of deaths in the Administrative County amounted to 8,868, the number in the Urban Districts being 6,683 and in the Rural Districts 2,185.

In the following table comparative rates for nine quinquennial periods and for the past four years are given, together with corresponding figures for the Country as a whole, and for large and small towns throughout England.

DISTRICTS		DEATH-RATE PER 1,000 OF POPULATION.											
		5 yrs 1889- 1893	5 yrs 1894- 1898	5 yrs 1899- 1903	5 yrs 1904- 1908	5 yrs 1909- 1913	5 yrs 1914- 1918	5 yrs 1919- 1923	5 yrs 1924- 1928	5 yrs 1929- 1933	1934	1935	1936
Staffordshire {	Combined Urban & Rural	18.1	16.9	16.1	14.6	14.1	15.0	12.3	11.4	11.6	10.8	11.1	11.2
	Urban	18.9	17.5	16.6	15.1	14.7	15.5	12.6	11.5	11.8	10.7	11.2	11.2
	Rural	16.8	15.7	15.1	13.4	12.7	13.8	11.6	11.2	11.2	10.9	10.8	11.3
England and Wales		19.1	17.4	16.9	15.3	13.9	15.2	12.5	12.0	12.3	11.8	11.7	12.1
Large Towns		21.0	19.0	18.2	15.8	14.3	15.5	12.6	12.0	12.3	11.8	11.8	12.3
Smaller Towns		17.6	15.9	15.7	14.9	13.6	14.1	11.5	11.0	11.2	11.3	11.2	11.5

In the following table I have shown the *chief* causes of death for the last ten years, the numbers given for 1937 being 67.8 per cent. of the total deaths:—

TABLE SHOWING CHIEF CAUSES OF DEATH.

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
*Zymotic Diseases	242	376	301	281	311	231	223	303	217	241
Influenza	116	570	131	311	221	424	139	170	121	359
Tuberculosis of Respiratory System	423	492	476	497	412	469	438	434	358	412
Tuberculosis, other forms	99	100	104	112	113	87	93	86	74	90
Cancer, Malignant Disease	851	899	912	897	915	896	963	981	968	989
Cerebral Hæmorrhage	430	462	431	477	510	460	443	457	477	505
Heart Disease	1239	1448	1366	1500	1561	1579	1556	1618	1846	2006
Bronchitis	395	622	352	485	369	409	311	377	366	329
Pneumonia	563	933	588	630	570	607	570	562	540	603
Congenital Debility, etc.	428	420	409	459	443	413	412	415	472	482

*Typhoid and Paratyphoid Fevers, Measles, Small-pox, Scarlet Fever, Whooping Cough, Diphtheria and Diarrhœa.

On examination of this table, it will be noted that heart disease easily heads the list, no fewer than 2,006 deaths being attributed to this cause. This number is more than double that next on the list, viz., cancer, with 989 deaths. Although there has been almost a continuous increase in the number of deaths from heart disease recorded during the last ten years, they have occurred in the degenerative period of life, and as people live longer than a generation ago we must expect an increase in deaths from this cause.

The number of deaths from cancer is slightly more than that for last year. There has been a considerable increase during the last ten years, but as the liability to cancer increases as age advances, the increased incidence can be explained in a similar manner to that given for the increase of deaths from heart disease.

The following table shows the number of deaths in different age groups, from various causes, during 1937. It is interesting to compare this with the previous table showing the principal causes of death. Pneumonia again took heavy toll of child life, no fewer than 191 deaths in children under five years of age being due to this cause, and of the 789 total deaths occurring in children under one year of age 115 were due to pneumonia. Deaths from infantile diarrhoea were again less compared with the previous year, there being 55 deaths in children under two years of age compared with 72 in 1936. Deaths from bronchitis show little change, but the number of deaths in children due to this cause has decreased.

The figures for influenza were considerably greater than in the previous year. In tuberculosis of the respiratory system the majority of deaths took place between the ages of 15 and 45, as is usually the case. The death rate from tuberculosis is given under the appropriate heading at the end of this Report. It will be noted that deaths in infants under one year, due to congenital debility, premature births, malformations, etc., amount to 474, an increase of nine over the previous year. I refer to this matter in the appropriate section later in this Report. (Page 66).

Mortality at Different Ages from Various Causes.

The following table gives the mortality from various causes in different age groups in the Administrative County during 1937 :—

Causes of Death.	Age at Death											TOTAL
	Under 1	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 35	35 and under 45	45 and under 55	55 and under 65	65 and under 75	75 and over	
1. Typhoid and Paratyphoid Fevers	—	—	—	—	—	—	—	—	1	—	—	1
2. Measles	7	18	6	3	2	—	—	—	—	—	—	36
3. Scarlet Fever	—	1	4	2	—	1	—	—	—	—	—	8
4. Whooping Cough	19	13	10	2	—	—	—	—	—	—	—	44
5. Diphtheria	2	1	17	41	3	1	—	—	—	—	—	65
6. Influenza	13	10	4	5	21	20	29	48	69	71	69	359
7. Encephalitis Lethargica	—	—	1	—	4	2	2	2	1	1	—	13
8. Cerebro-spinal Fever	6	2	3	2	2	—	1	—	1	—	—	17
9. Tuberculosis of Respiratory System	1	2	—	9	89	96	90	54	50	20	1	412
10. Other Tuberculous Diseases	8	19	13	14	8	12	6	3	6	1	—	90
11. Syphilis	—	—	—	—	—	—	2	1	4	3	2	12
12. General Paralysis of the Insane, Tabes Dorsalis	—	—	—	—	1	—	6	6	8	3	—	24
13. Cancer, Malignant Disease {	—	1	1	3	8	22	57	129	286	318	164	989
14. Diabetes	—	—	—	1	4	5	1	11	26	54	19	121
15. Cerebral Hæmorrhage, etc.	—	—	—	—	1	2	10	26	103	193	170	505
16. Heart Disease	1	—	2	13	32	27	67	139	336	678	711	2006
17. Aneurysm	—	—	—	—	1	—	2	2	1	3	—	9
18. Other Circulatory Diseases	—	—	—	—	—	—	6	17	44	108	197	372
19. Bronchitis	29	4	3	—	2	2	10	28	45	86	120	329
20. Pneumonia (all forms)	115	45	31	17	26	20	67	68	84	67	63	603
21. Other Respiratory Diseases	2	3	—	6	1	2	10	15	15	11	14	79
22. Peptic Ulcer	—	—	—	—	2	7	12	14	17	9	7	68
23. Diarrhœa, etc.	52	3	8	—	4	3	2	2	3	5	5	87
24. Appendicitis	—	1	2	7	6	3	2	5	6	5	—	37
25. Cirrhosis of Liver	1	—	—	—	—	—	3	2	11	7	2	26
26. Other Diseases of Liver, etc.	—	—	1	—	2	1	3	6	9	11	13	46
27. Other Digestive Diseases	6	2	6	8	3	5	9	16	25	25	20	125
28. Acute and Chronic Nephritis	—	—	—	5	17	12	11	26	61	59	43	234
29. Puerperal Sepsis	—	—	—	—	3	7	5	—	—	—	—	15
30. Other Puerperal Causes	—	—	—	—	4	11	17	1	—	—	—	33
31. Congenital Debility, Premature Birth, Malformations, etc.	474	1	3	2	—	—	2	—	—	—	—	482
32. Senility	—	—	—	—	—	—	—	—	6	69	397	472
33. Suicide	—	—	—	—	6	5	7	19	25	18	5	85
34. Other Violence	17	1	17	35	57	51	43	35	38	41	52	387
35. Other Defined Diseases	35	10	13	34	40	42	54	72	124	161	77	662
36. Causes ill-defined or unknown	1	—	—	—	—	—	1	—	5	2	6	15
Totals	789	137	145	209	349	359	537	747	1410	2029	2157	8868
	Special causes included in No. 35 above.											
Anthrax	—	—	—	—	—	—	1	—	—	—	—	1
Polio-encephalitis	1	—	—	—	—	—	—	—	—	—	—	1
Polio-myelitis	1	—	—	—	2	—	—	—	—	—	1	4

The following table has been prepared covering the last 18 years in which the percentage of deaths under 45 years of age is worked out in relation to the total deaths at all ages, and in the table the sexes are divided.

Speaking generally, 30 per cent. of all deaths occur now under the age of 45, so that 70 per cent. occur afterwards. From a public health point of view, this is a matter for congratulation, for it shows how effective the preventive measures have been during youth and in the productive period of life. On reference to the previous table, giving the chief causes of death, it will be noted that there has been a gradual increase in the number of deaths from diseases usually associated with the later periods of life, such as cancer and heart disease, since a larger number of people over 45 survive than they did in years just following the war. Continuous medical research on the causes of these diseases is taking place, and although more light has been thrown on their origins, we cannot expect, as yet, to be able to formulate measures of prevention as successful as are now available for diseases of infective origin.

DEATHS UNDER 45 YEARS OF AGE—MALE AND FEMALE—
SHEWING PERCENTAGE OF TOTAL DEATHS (ALL AGES).

YEAR	MALE			FEMALE		
	Deaths all ages	Deaths under 45	Per cent. of Total	Deaths all ages	Deaths under 45	Per cent. of Total.
1920	4626	2295	49.61	4084	1935	47.38
1921	4545	2120	46.64	3985	1759	44.14
1922	4534	1943	42.85	4191	1793	42.78
1923	4197	1816	43.27	3788	1556	41.08
1924	4332	1795	41.43	3906	1520	38.91
1925	4556	1919	42.12	4161	1724	41.43
1926	4148	1658	39.97	3808	1441	37.84
1927	4458	1766	39.61	4082	1564	38.31
1928	3965	1449	36.54	3563	1180	33.12
1929	4813	1827	37.96	4293	1453	33.84
1930	4100	1473	35.92	3672	1211	32.98
1931	4376	1472	33.64	3933	1272	32.34
1932	4190	1425	34.01	3824	1174	30.70
1933	4213	1415	33.59	3900	1207	30.95
1934	4105	1261	30.72	3655	1054	28.84
1935	4284	1354	31.61	3802	1159	30.48
1936	4203	1266	30.12	4022	1100	27.35
1937	4793	1484	30.96	4075	1041	25.55

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

Local Government Act, 1929.

I mentioned in last year's Report that the scheme for the establishment of a new hospital at Wordsley had been approved by the Ministry of Health.

The Public Assistance Institution at Newcastle was gradually emptied during the year, the inmates being distributed amongst the other Institutions throughout the County. Tenders have been accepted for the demolition of the old building and it is hoped that work on the erection of the new Hospital on the same site will be started early in 1939.

Owing to the closing of Newcastle, and the termination of the agreement with Wolverhampton to send cases from the south of the County to the New Cross Hospital, additional accommodation had to be found for the sick at Wordsley Institution. It was estimated that until the full re-organisation of the institutional service took place about 300 sick beds would be required at Wordsley. To provide for the housing and adequate treatment of these it was necessary to clear Wordsley of the non-sick and mental type of case and for certain alterations and additions to be made in the wards previously used for mental cases. At the moment of writing it is uncertain how far the present accommodation will suffice for future needs, but for the transition period through which Wordsley is passing at the moment, adequate provision is made for the treatment of all types of case. Ward kitchens and sanitary accommodation have been provided for the wards where these were lacking, and an X-ray Department has been established. A resident House Surgeon has been appointed and Consultants are available to be called in when necessary from Wolverhampton and Birmingham.

Poor Law Medical Out-Relief.

Since the transfer of this service, under the Local Government Act, 1929, to the County Council, its functions have been co-ordinated with the general health services of the County. Persons in need of treatment whose cases are referred in the first place to the Public Assistance Department,

and who would formerly have been dealt with under the Poor Law Acts, are now referred, wherever possible, to the appropriate Committee of the County Council. Children form the majority of these cases, of course, and many of them have been dealt with during last year under the Council's Orthopædic Scheme and by the Education Committee.

Institutional Provision for the Care of Mental Defectives.

During 1937, beds at Great Barr Park Colony became available under arrangements made between the County Council and the Colony Joint Committee. At the end of the year there were 377 certified mental defectives in Institutions, 281 of whom were chargeable to the County Council at Great Barr.

Nursing in the Home.

(a) General Nursing.

At the end of 1936 there were 86 Nursing Associations affiliated to the County Nursing Association undertaking general nursing in the Administrative County, and during the year under review the following changes and extensions took place :—

New associations established :—

Norton Canes	...	...	(1. 6.37)
Onecote	...	...	(1.12.37)
Penkridge	...	...	(1.12.37)
Silverdale and Knutton	...	...	(1. 7.37)
Talke	...	...	(1.10.37)

The Abbots Bromley Nursing Association, which closed down at the end of April, 1935, was resuscitated, and commenced again on the 1st September, 1937, and as a result of the Midwives Act, 1936, the Adbaston and Croxton and Broughton Associations amalgamated. With the commencement of this Act the Yoxall Association affiliated to the County organization, but the Wolstanton District Association severed their connection with that body.

It will be seen, therefore, that at the end of 1937, ninety-one affiliated associations were in operation, and of these eighty-five now undertake midwifery as compared with sixty-five at the end of the previous year. Two only of the eighty-five are not included in the new midwifery service of the County Council, viz., Norton-in-the-Moors and Tipton, the latter association operating in the area of another Local

Supervising Authority. Seventeen associations, previously undertaking only general nursing, extended to include midwifery, and the six which were established during the year perform the combined work. Previously the two associations which amalgamated served their areas for both purposes. The Old Hill Association had to relinquish midwifery when the Rowley Regis Borough Council became the Local Supervising Authority of their district, and the Aldridge Association voluntarily gave up this work at the end of December.

During 1938 five further affiliated nursing associations have been organized in the County area, four undertaking general nursing and midwifery, and one general nursing only. In addition to the Administrative County the County Nursing Association have five affiliated associations working in the County Boroughs of Stoke-on-Trent and Wolverhampton.

There are still nine independent Nursing Associations, for, as already stated, one became affiliated and another dis-affiliated, and they all undertake general nursing. The following include midwifery also, and the two first named are co-operating in the new service:—Essington, Stafford and Tutbury.

(b) Infectious Diseases.

In the County Health Visiting Area, arrangements exist whereby local Medical Officers of Health, in the event of epidemics of measles or diarrhoea, can obtain the services of trained nurses to look after the cases in their own homes. Little advantage, however, has been taken of this arrangement, and during 1937 no application was received from any of the District Medical Officers of Health.

MIDWIVES ACT, 1936.

During the year under review, the domiciliary midwifery service of the Country has been organized as a result of the Midwives Act, 1936, which came into operation on the 31st July. The object of the Act is to provide a service of salaried midwives under the control of Local Supervising Authorities, with a view to improving the maternity services, the ultimate aim being to reduce maternal mortality and morbidity. Apart from this desirable objective, the effect will be to raise the status of the midwifery profession, by providing adequate salaries and secure prospects for the midwives who enter the new service. In addition, the Act

provides for the payment of compensation to midwives fulfilling certain conditions who voluntarily surrender their certificates within a prescribed period, and also to those who may be required to surrender their certificates, the Authority being of the opinion that they are incapable, by reason of age or infirmity of mind or body, of efficiently performing their duties.

The primary duty of a Local Supervising Authority is, therefore, to secure the whole-time employment of midwives for attendance on women in their own homes, not only as midwives but also as maternity nurses. There are several avenues available, i.e., direct employment by the Authority, or to secure the service through Welfare Councils which are not Local Supervising Authorities, or through voluntary organisations. Before proceeding to detail the scheme ultimately decided upon in this County, I would mention that formerly the County Council were responsible as Local Supervising Authority for the whole of the Administrative County, but consequent upon this Act, the Rowley Regis Borough and Tipton Urban District Councils made applications under Section 62 of the Local Government Act, 1929, to be made Local Supervising Authorities under the Midwives Acts, and they were successful, the Orders taking effect on the 1st September, 1937. The County Council were therefore concerned with the remaining twenty-three Urban Districts and the ten Rural Districts of the Administrative County, which now have a total estimated population of 661,680.

Prior to the commencement of the Act, practically the whole of the County area was covered by local nursing associations, the majority of which were affiliated to the County Association, and it was decided to ask them to administer the new service on our behalf. The activities of many of these associations did not include midwifery, most of those in the urban areas being responsible for general nursing only, but in the rural districts, of necessity the nurses performed the combined duties. As regards the affiliated associations, the negotiations were conducted with the County organization. It was necessary that the associations undertaking general work only should be invited to include midwifery, to ask for amalgamations and extensions of nursing districts to form more economical units, and to require the County Association to establish new associations to cover the few un-nursed areas of the County. On paper there was little difficulty and in the majority of cases all

concerned were anxious to co-operate, but as the organization proceeded obstacles arose which proved to be surmountable, and the effect was that the whole of the scheme could not be brought into force on the appointed day, so that it came into operation gradually as each district was organized.

As required by the Act, before the above-mentioned course was agreed, conferences were held with the separate Welfare Authorities, the County Nursing Association, the independent Nursing Associations, the branches of the Midwives Institute operating in the County and the local representative of the British Medical Association.

The position of the midwife was fully considered, and the following salary scales decided upon:—

Village Nurse under agreement—

C.M.B. Certificate only	...	£130	rising by	£5	per annum to	£140.
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Midwife with C.M.B. Certificate

only	£180	rising by	£5	per annum to	£200.
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State Registered Nurse-Midwives	...	£190	rising by	£10	per annum to	£220.
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Queen's Nurses	£200	rising by	£10	per annum to	£240.
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In addition, arrangements were provided for an adequate superannuation scheme, and it was agreed to make an annual uniform allowance of £8 per nurse, to allow reasonable amounts for the maintenance of equipment and insurances, and to ensure that each midwife was on the telephone. As regards travelling facilities, where a car was essential and had not been provided or previously was not necessary, an annual allowance was agreed, and in urban areas where a nurse was engaged wholly in midwifery and maternity nursing, a cycle allowance of £5 per annum was granted. Stipulations were also made regarding holidays and off-duty times.

In estimating the number of whole-time midwives required for the urban districts, the probable number of births was ascertained and it was accepted that each midwife would be capable of dealing satisfactorily with eighty to one hundred cases per annum.

The salaried posts were duly advertised and brought to the notice of practising midwives. As suggested by the Minister, marriage was considered no disqualification when the appointments were made by the Nursing Associations.

As regards fees, a standard amount of 30s. per case was laid down to cover attendance as midwife or maternity nurse and this has been varied in respect of miscarriages and abortions, the fee for attendance on such cases now being 15s. The question of fees charged by rural Associations is also mentioned later.

The financial arrangements differ in the Urban and Rural Districts. In practically all the former areas the midwifery service demanded a whole-time staff, which is kept entirely separate from the general nursing, and the County Council agreed to bear the total net cost, which, in such instances, includes a sum of £5 per nurse for administrative purposes. As far as the Rural Areas are concerned, Associations undertaking general nursing and midwifery, nearly all with one nurse only, were already in existence and they agreed to co-operate in the new service provided the County Council would supply the increased expenditure necessary to place their nurses on the appropriate scales of salaries and bear the cost of allowances etc. not made before the Act came into operation. A proviso was added to the effect that if any Association included in this section of the scheme had a deficit at the end of a financial year the question of making an additional grant would be considered by the County Council. Since the new service commenced, a difficulty has arisen regarding the fixing of the standard fees of 30s. and 15s. already mentioned, in the areas where the County Council are paying the increased cost only, and the matter is at present under consideration.

I have already mentioned that the question of holidays and off-duty times was adequately dealt with, and in this connection, as well as absences on account of illness, suspension due to contact with infection, and later post-certificate courses, arrangements for relief had to be made. To ensure efficiency in this respect the County Nursing Association agreed to maintain a separate staff, some midwives being placed in areas where whole-time midwifery relief was necessary and others retained centrally to be posted wherever they were needed. The County Council accepted full responsibility for expenditure in this respect for midwifery purposes only. In two or three districts where the work necessitated several midwives and part of the time of another, the staff was made complete by the appointment of the additional nurse but the area was made self-contained for relief purposes to ensure whole-time employment.

The control of the midwives was also given due consideration, and it was made perfectly clear that the County Nursing Association were concerned with administration only, so that there would be no difficulty or misunderstanding as regards the position of the County Council as Local Supervising Authority.

At the beginning of this section of the Report, I called attention to the fact that difficulties were encountered, and one of these was where nursing associations undertaking only general work refused to include midwifery in their activities. In these instances the County Nursing Association agreed to administer the areas direct from their headquarters and this course has proved effective.

In certain sparsely populated districts where it was necessary to establish new associations to perform combined duties, the County Council agreed to pay the total net cost for the first year, i.e., until such time as the response from subscribers and to voluntary efforts could be fully ascertained.

The following are details of the areas served at the time of writing this report, in groups according to the date on which the new service commenced.

From 1st August.

Fifty-one existing affiliated Rural Nursing Associations, each with one nurse-midwife, and three each with two nurses undertaking combined duties, commenced on this date, and the following re-organizations had taken place or were subsequently effected :—

Amalgamation of Adbaston and Croxton & Broughton Associations.

Extensions :—

Alstonefield Association to include Warslow and Elkstones.

Barton-under-Needwood to include Tatenhill and Branstone.

Chasetown to include Farewell and Chorley.

Endon to include Bagnall.

Marchington to include Hanbury.

Wombourn to include Lower Penn, Trysull and Seisdon.

By arrangement, two of the 51 associations serve areas outside Staffordshire, as follows:—

Lapley Association ... Tong (Shropshire).

Thorpe Association ... Parishes of Austrey, Seckington and Newton Regis (Warwickshire).

The following Urban Associations also commenced activities on the 1st August:—

Affiliated:—

Aldridge	...	1 Nurse-midwife.	Part Aldridge U.D.	A whole-time midwife ultimately became necessary and was appointed by the County Nursing Association from 1st. Jan., 1938, the local Association having intimated that they did not wish to administer the service.
Stone	...	2	do.	Stone U.D.
Streetly	...	1	do.	Parts Aldridge U.D. and Lichfield R.D.
Tettenhall	...	2	do.	Tettenhall U.D.; Part Wrottesley Parish (Seisdon R.D.)
Uttoxeter	...	3	do.	Uttoxeter U.D. ; Uttoxeter R.D. Parish and Part Kingstone Parish (Uttoxeter R.D.)

Unaffiliated—

Stafford	...	4 whole-time midwives	Stafford M.B.; Castle Church Parish (Stafford R.D.)
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From 1st September.*Affiliated—**Urban.*

Cannock	...	4	whole-time midwives	Cannock and Chadsmoor (Cannock U.D.) ; Hunt- ington Parish (Cannock R.D.) The Chadsmoor affiliated and Hunting- ton unaffiliated associa- tions agreed to continue with general nursing only.
Darlaston	...	5	do.	Darlaston U.D.
Hednesford	...	3	do.	Cannock U.D. (Part) ; Extended to cover Cannock Wood and Heath Hayes and also Brindley Heath Parish (Lichfield R.D.)
Leek	...	3	do.	Leek U.D.
Lower Gornal		4	do.	Sedgley U.D.
Norton Canes		1	do.	Part Brownhills U.D. Newly formed association.
Rugeley	...	2	do.	Rugeley U.D., and Colton Parish (Lich- field R.D.) Extended to include Longdon Parish (Lichfield R.D.)

Rural.

Abbots Bromley		1	Nurse- midwife	Part Uttoxeter R.D. This association was re-established.
Chasetown	...	Additional midwife commenced duty.		
Cheslyn Hay		1	whole-time midwife	Part Cannock R.D.

Unaffiliated.

Stafford	...	1	additional whole-time midwife.
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County Nursing Association Headquarters :—

Lichfield City—Two whole-time midwives will ultimately be required for this district, which also includes Curborough and Elmhurst Parish (Lichfield R.D.). There is no nursing association and at present there is a strong private practice. The County Nursing Association have therefore appointed one whole-time midwife for the time being.

Norton-in-the-Moors (Leek R.D.)—An affiliated Nursing Association serves the northern portion of this Parish and a part of the City of Stoke-on-Trent, but they would not extend their area. It was accordingly necessary for the County Association to provide a whole-time midwife.

.....

From 1st October.*Affiliated :—**Urban.*

Bilston	...	6 whole-time midwives	Bilston M.B.
Brownhills	...	2 do.	Part Brownhills U.D.
Coseley	...	5 do.	Coseley U.D.
Kingswinford	...	1 do.	Part Brierley Hill U.D.
Pensnett	...	4 do.	Part Brierley Hill U.D., (Bromley, Pensnett, Brierley Hill).
Shelfield	...	3 do.	Part Brownhills U.D. (Shelfield and Walsall Wood) and extended to include Pelsall and Rushall (Aldridge U.D.)
Talke	...	1 whole-time midwife	Part Kidsgrove U.D. Newly formed associa- tion.
Tamworth	...	1 do.	The area concerned is Tamworth M.B. and part of Wigginton Parish (Lichfield R.D.), but here again there is strong opposition and one only of the two midwives required has been appointed.

Wednesfield	...	2 whole-time midwives	Wednesfield U.D.
Willenhall	...	6 do.	Willenhall U.D.
Wordsley	...	1 do.	Part Brierley Hill U.D. and Amblecote U.D.

Rural.

Audley	...	1 do.	Part Newcastle R.D.
Yoxall	...	1 nurse- midwife	Part Tutbury R.D. This association was in exist- ance and affiliated when the scheme com- menced.

Unaffiliated :—

Essington	...	1 nurse- midwife	Part Cannock R.D.
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.....

From 1st November.*Affiliated.**Urban—*

Quarry Bank	...	2 whole-time midwives	Part Brierley Hill U.D.
Talke	...	2 additional whole-time midwives	This Association agreed to serve the remainder of Kidsgrove U.D.

County Nursing Association Headquarters :

Newcastle M.B.	...	10 whole-time midwives	The nursing associations in this area preferred to continue with general work only. The staff was later reduced to 9, as there are many in- dependent midwives.
Wednesbury M.B.	...	7 do.	An independent nursing association undertakes general nursing, but they would not extend to include midwifery.

From 1st December.

Two newly established Rural Nursing Associations came into operation, viz.—

Penkridge	...	1 Nurse-midwife	Part Cannock R.D.
Onecote	...	1 do.	Part Leek R.D.

The County Nursing Association also appointed three whole-time midwives to serve Biddulph U.D. and Horton Parish (Leek R.D.) where there is no local association.

.....

From 1st January, 1938.

Two further new Rural Associations commenced, as follows:—

Longnor	...	1 Nurse-midwife	Part Leek R.D.
Madeley	...	1 do.	Part Newcastle R.D.

.....

From 1st February, 1938.

A Rural Association began their activities at Heaton, with one nurse-midwife to serve a part of Leek R.D.

.....

The last association to be formed under the scheme was at Needwood Forest (Anslow), and it operated from 1st June, 1938, with one nurse-midwife, the area concerned being a part of Tutbury R.D. Until this date the district was served by neighbouring associations.

Relief Staff.—Until the full requirements are known, i.e., when the post-certificate courses commence, and there is experience of wastages due to absences for other causes, the final arrangements for this staff are in abeyance, but, as already stated, the County Nursing Association have made adequate provision for the present needs of those areas which are not self-contained.

The only portion of the County not covered by the scheme is the Parish of Tutbury (Tutbury R.D.). In this area there is an efficient unaffiliated association undertaking general nursing and midwifery, and they requested that their previous activities should not be interfered with in any way.

The following is a summary of the present staff placed in districts, i.e., excluding relief nurses :—

	<i>Whole-time Midwives</i>			<i>Part-time</i>		
	<i>Queen's</i>	<i>S.R.N.</i>	<i>S.C.M.</i>	<i>Queen's</i>	<i>S.R.N.</i>	<i>S.C.M.</i>
		<i>S.C.M.</i>			<i>S.C.M.</i>	
Affiliated						
Associations	4	17	39	20	4	50
Unaffiliated do.	3	—	2	—	—	1
County Nursing Association						
Headquarters	—	3	19	—	—	—
Totals	7	20	60	20	4	51

162 Midwives (87 whole-time ; 75 Part-time)

S.R.N.—State Registered Nurse.

S.C.M.—State Certified Midwife.

Compensation.

During the period ended 31st December, twelve midwives voluntarily surrendered their Central Midwives Board Certificates to this Authority and claimed compensation in accordance with the Act, the first being received on the 9th August. Five of the applicants had also practised in the areas of adjoining Local Supervising Authorities who, in three cases, were responsible for appropriate portions of the amounts of compensation, and similarly the County Council were required to contribute towards the amount due to one midwife who had practised in their area and who had surrendered her certificate to a neighbouring Authority.

In each instance the certificate was forwarded to the Central Midwives Board for cancellation, and a full investigation made of income and expenditure during the period laid down in the Act, the County Treasurer being supplied with the particulars necessary to enable him to assess compensation according to the prescribed formula.

The total amount of compensation paid to the twelve applicants who surrendered their certificates to this Authority was £3,214 19s. 1d., the amount relating to services rendered outside the County area being £376 6s. 8d., and the County Council's contribution in respect of the out-of-area midwife was based on £24.

One other midwife claimed compensation but the circumstances were such that the provisions of the Act had not been complied with, and the application was refused.

During 1937, no certificates were demanded, this question being finally dealt with early in 1938.

MIDWIVES ACTS, 1902-1926.

There was an amendment in Section E. of the Rules of the Central Midwives Board as from the 1st January, 1937, which materially affected the practice of midwives. Previously, Rule E.12 laid down that in normal cases the lying-in period would be held to mean the time occupied by the labour and a period of not less than ten days thereafter, during which time the midwife must personally supervise and be responsible for the cleanliness, comfort and proper dieting of the mother and child. As a result of the amendment the midwife is now similarly responsible for a period of not less than 14 days following the labour.

As stated in an earlier section of the Report, as from the 1st September, 1937, the work undertaken under these Acts relates to the Administrative County with the exception of the Borough of Rowley Regis and the Tipton Urban District. The estimated population at the middle of the year of the area now administered by the County Council as Local Supervising Authority was 661,680, whilst their Health Visiting Area, which, in addition to the two districts already mentioned, does not include the Municipal Boroughs of Bilston, Newcastle, Stafford and Wednesbury, and the Urban Districts of Cannock and Coseley, had a population of 438,320, as estimated by the Registrar-General.

The following information regarding midwives and the cases they attended during 1937 relates to the area administered by the County Council at the end of the year and excludes the work in Rowley Regis and Tipton during the first eight months.

On the 31st December there were 220 domiciliary midwives resident in the County area who were actually practising, 157 district and 17 relief midwives employed by Nursing Associations, and 46 in independent practice. In addition, five Maternity Home keepers also attended district cases. Thirty-eight out-of-area midwives, including 3 employed by Nursing Associations whose areas extend into Staffordshire, accept cases inside the County. One only of the midwives resident within the County is *bona-fide*.

As regards ages, it is not now practicable to include the comparative table which has appeared in the Reports for previous years, in view of the changes which have taken place during 1937, i.e., the curtailment of the area and the voluntary surrender of midwifery certificates, but from the

following figures it will be seen that the majority of the 203 district midwives are under 45 years of age:—

21 to 44	...	...	122
45 to 64	...	...	80
65 and upwards	...	...	1

In the table which follows, are given the numbers of domiciliary cases attended by midwives during 1937, and the information is divided into the three areas of the County. For comparative purposes the numbers of midwives resident in each district at the end of the year are given in the first column, for although some of the cases were attended by out-of-area midwives, and midwives who served for a portion of the period only, the average number taken by such nurses was small, and their practices extended fairly evenly throughout the County.

	No. of Mid-wives	Total Births (Live and Still-born)	Live and Still Births attended					†Births in respect of which no record is available.	
			*As Midwives			†As Maternity Nurses.			
			Births	% of total	Mean No. of cases per mid-wife	Births	% of total	No.	% of total
North	69	3030	1944	64.2	28.2	661	21.8	425	14.0
Central	72	3622	2514	69.4	34.9	548	15.1	560	15.5
South	62	5151	3639	70.6	58.7	477	9.3	1035	20.1
Totals	203	11803	8097	68.6	39.9	1686	14.3	2020	17.1

* Doctors not having been engaged for the confinements.
† Doctors having been engaged by the patients.
‡ These figures are in respect of births which (i) were attended by doctors, no midwife having been engaged ; (ii) took place outside the Administrative County ; (iii) took place in Institutions.

As regards (iii) of the third note to the above table, the following are particulars of the institutional births (live and still) dealt with in the area of the Local Supervising Authority:—

	Midwifery.	Maternity.	Total.
In Public Assistance			
Institutions ...	401	133	534
In Maternity Homes ...	115	259	374
	<u>516</u>	<u>392</u>	<u>908</u>

In addition to the births already detailed, the domiciliary midwives attended patients having abortions and miscarriages. as follows :—

		As Midwives.	As Maternity Nurses.	Total.
North	...	58	29	87
Central	...	42	26	68
South	...	5	28	33
		<hr/> 105 <hr/>	<hr/> 83 <hr/>	<hr/> 188 <hr/>

Since the Rules of the Central Midwives Board were altered so that more adequate attention could be paid to ante-natal care, every endeavour has been made to induce women not to book for their confinements at the very last stage of pregnancy, as so commonly happened in the past.

In compliance with the Rules of the Central Midwives Board, 4,228 notifications have been received from certified midwives in 1937 under the four headings set forth in the following table, which includes figures for comparison with the past ten years, together with the number of births attended by midwives :—

Year.	Number of Births attended by Midwives.	Sending for Medical Help.	Still-births.	Death of Mother.	Death of Child.
1928	10,523	2,764	208	13	117
1929	10,154	3,154	233	17	127
1930	10,115	3,505	225	10	142
1931	9,787	3,741	221	17	140
1932	9,621	3,755	229	11	150
1933	8,839	3,789	203	11	154
1934	9,172	3,784	236	13	162
1935	9,155	3,865	226	14	147
1936	9,272	4,144	246	13	192
1937	8,202	3,860	211	7	150

The following table shows to what extent midwives have had occasion to call in medical assistance at confinements over a period of 23 years. From this it will be observed that there has been a large increase in this period of the requests for medical help, which can be ascribed to the trained type of midwife that is now practising. This is also reflected in the increase in the fees paid by the County Council to medical practitioners, as shown in a subsequent table.

NUMBER OF PRACTISING MIDWIVES, CONFINEMENTS TAKEN BY
MIDWIVES AND DOCTORS' CALLS BEFORE, AT AND AFTER
CONFINEMENT, 1915—1937 :—

YEAR	No. of Practising Midwives at end of Year	Trained	Not Trained	No. of Confinements taken by Midwives as Midwives	Doctors Calls (Mother or Child)	% of Medical Calls
1915	320	129	191	11,325	1,209	10.7
1916	307	137	170	10,632	1,291	12.1
1917	301	145	156	10,377	1,202	11.6
1918	288	152	136	10,174	1,165	11.4
1919	284	179	105	10,616	1,809	17.0
1920	286	181	105	13,770	1,769	12.8
1921	301	207	94	12,800	1,948	15.2
1922	290	224	66	13,033	1,992	15.3
1923	287	230	57	11,637	1,894	16.2
1924	272	225	47	11,382	2,083	18.3
1925	286	247	39	11,780	2,219	18.8
1926	285	250	35	12,201	2,523	20.7
1927	274	252	22	10,282	2,564	24.9
1928	276	263	13	10,523	2,764	26.2
1929	275	262	13	10,154	3,154	31.0
1930	265	255	10	10,115	3,505	34.6
1931	277	268	9	9,787	3,741	38.2
1932	267	262	5	9,621	3,755	39.0
1933	287	282	5	8,839	3,789	42.9
1934	277	272	5	9,172	3,784	41.3
1935	269	265	4	9,155	3,865	42.2
1936	274	271	3	9,272	4,144	44.7
1937	203	202	1	8,202	3,860	47.1

The following figures show the causes which occasioned the sending for medical help : —

Causes of sending for Medical Aid	Northern District	Central District	Southern District	Total
PREGNANCY :				
Query Presentation	—	45	—	45
Threatened Abortion	20	26	38	84
Puffiness of face and hands	2	13	14	29
Fainting	—	7	3	10
Varicose Veins	6	8	19	33
Fits	2	2	5	9
Vaginal Discharge	4	12	11	27
Unsatisfactory condition & general health	91	47	87	225
Excessive Sickness	2	19	22	43
Loss of Blood	37	28	29	94
History of previous Still-births and Abortions	—	4	15	19
Œdema of Legs	14	13	7	34
Albuminuria	44	83	77	204
Sore of Genitals	—	—	5	5
Contracted Pelvis	4	8	68	80
Abnormal Urine	—	—	6	6
Blood Pressure	—	3	—	3
Septic Teeth	—	1	—	1
Anæmia	2	—	—	2
	228	319	406	953
LABOUR :				
Premature Birth	4	14	6	24
Abnormal Presentation	44	33	62	139
Delayed or Difficult	196	190	257	643
Placenta Prævia	2	4	—	6
Hæmorrhage ante	8	31	16	55
Ditto post	15	23	34	72
Eclampsia	1	4	2	7
Prolapse of Cord	1	3	6	10
Lacerated Perinæum	187	224	286	697
Retained Placenta and Membranes	17	23	43	83
Unsatisfactory Condition	41	20	33	94
Inertia	29	37	26	92
Abortion	29	40	35	104
Purulent Discharge	—	—	1	1
Contracted pelvis	—	3	—	3
Albuminuria	1	1	1	3
	575	650	808	2033

Causes of sending for Medical Aid	Northern District	Central District	Southern District	Total
LYING-IN :				
High Temperature	34	44	57	135
Inflamed and painful leg	7	18	12	37
Convulsions	—	1	1	2
Unsatisfactory Condition	26	19	33	78
Offensive Lochia	—	1	4	5
Secondary Post-partum hæmorrhage	—	2	—	2
Unusual Swelling of Breasts	5	7	7	19
Abdominal Swelling and tenderness	3	2	6	11
	75	94	120	289
CHILD :				
Deformities	3	12	13	28
Convulsions	4	1	11	16
Inflamed and discharging eyes	32	53	118	203
Feebleness and prematurity	40	53	73	166
Unsatisfactory Condition	26	19	76	121
Rash	3	2	5	10
Pemphigus	—	1	1	2
Spina Bifida	2	9	6	17
Hare Lip and Cleft Palate	2	2	4	8
Club Foot	—	4	1	5
Jaundice	2	7	—	9
	114	163	308	585
Grand Totals	992	1226	1642	3860

In addition to the figures included above for the southern district, 419 medical aid forms were received in respect of Rowley Regis and Tipton patients during the first eight months of the year.

In the following Table, in which the County is divided into three districts, the numbers of the notifications received from midwives, together with the visits, interviews and inquiries of the Inspectors of Midwives, are shown :—

VISITS AND INTERVIEWS OF INSPECTORS, NOTIFICATIONS, INQUIRIES ETC., DURING THE YEAR 1937.

District	Notifications																	Inquiries																
	Visits and Interviews	Medical Assistance							Deaths		Still-Births	Puerperal Fever *	Puerperal Pyrexia	Contact with infection	Laying out the dead	Artificial Feeding	Ante-natal				Lying In				Child		Deaths		Still-Births	Puerperal Fever	Puerperal Pyrexia	Contact with infection	Laying out the dead	Artificial Feeding
		Ante-natal	Labour	High Tem'ture	Other Conditions	Inflamed Eyes	Child	Other Conditions									High Tem'ture	Other Conditions	Labour	Ante-natal	Labour	High Tem'ture	Other Conditions	Inflamed Eyes	Child	Other Conditions								
North	415	228	575	34	41	32	82	69	1	35	2	17	39	8	71	.....	.....	34	5	39	5	.....	1	2	2	17	39	.....	1	
Central	398	319	650	44	50	53	110	49	2	53	9	40	77	11	89	2	1	44	12	58	10	1	2	5	7	35	77	.....	1				
South	582	406	808	57	63	118	190	93	4	62	11	42	57	13	96	4	.....	51	8	145	9	.....	4	8	11	37	55	1	4			
Totals	1395	953	2033	135	154	203	382	211	7	150	22	99	173	32	256	6	1	129	25	242	24	1	7	15	20	89	171	1	6					

* Puerperal Fever not notifiable as such after 30th September, 1937.

On comparing these tables with similar ones in previous reports, it is found that medical aid is called in during pregnancy to a much greater extent than formerly, and this would be expected owing to the attention now paid to ante-natal care, both by the midwives under the rules of the Central Midwives Board and by the ante-natal work of the Maternity and Child Welfare Scheme.

In addition to the routine enquiries conducted by the Supervisors of Midwives, eight irregularities were specially investigated. As a result, six midwives received letters of caution; one was interviewed at the office and cautioned, and one was interviewed by the County Council acting as the Local Supervising Authority and was censured.

Since the Act came into operation in 1902, the names of 115 midwives have been removed from the Roll in consequence of action taken by the Local Supervising Authority.

During the year no deaths of practising midwives were reported.

In 1937, thirteen District Nursing Associations who undertake midwifery were subsidised to the extent of £533 13s. 4d. in respect of periods prior to the commencement of the Midwives Act 1936. At the beginning of the year there were four midwives in private practise receiving subsidies, and another was provided with a telephone by the Local Supervising Authority so that her area could be enlarged to include two somewhat isolated villages, but these arrangements were dispensed with as a result of the Act. On 31st December, 1937, there were 85 local Nursing Associations affiliated to the County Nursing Association, and three non-affiliated local Nursing Associations, undertaking midwifery. The latter are Essington, Stafford, and Tutbury Nursing Associations.

Under Section 2 (1) of the Midwives and Maternity Homes Act, 1926, a total amount of £48 4s. 0d, which, apart from fees, included £1 12s. 6d. for midwifery bags destroyed in the County Laboratory, was allowed by the County Council as compensation for loss of practice where midwives had been suspended after contact with infectious cases. Six midwives were concerned and one had two periods of suspension. In no case was the midwife in default.

Under the Rules of the Central Midwives Board, a midwife has to send for medical help if any abnormality occurs, and

in the Midwives Act, 1918, provision is made for the payment of the doctor called in in this way, the fees allowed being according to a scale issued by the Ministry of Health.

During the financial year ended March, 1938, 4,466 notifications of sending for medical help were received, and, out of this number, medical practitioners claimed their fees from the County Council in 2,377 cases, that is 53.2 per cent. of the possible claims.

The fees paid by the County Council were as follows:—

FEES PAID TO MEDICAL PRACTITIONERS UNDER MIDWIVES ACT, 1918.

Finan- cial Year	No. of Notifications of sending for Medical Aid	No. of Claims received	Percentage of claims received to Notifications	Total amount paid to Doctors during year			Amounts recovered from Patients during year		
			%	£	s.	d.	£	s.	d.
1925-26	2228	780	35	1100	15	0	366	9	9
1926-27	2641	1147	43	1702	19	3	408	4	6
1927-28	2556	1136	44	1598	5	9	503	1	0
1928-29	2874	1419	49	2053	0	6	599	12	3
1929-30	3319	1810	55	2352	17	6	723	6	9
1930-31	3506	1950	56	2631	2	0	616	15	3
1931-32	3775	2176	57	3223	12	6	602	3	6
1932-33	3794	2255	59	2574	17	9	627	3	9
1933-34	3604	2208	61	3034	4	0	645	5	6
1934-35	3744	2127	57	3080	2	6	893	4	9
1935-36	3995	2139	54	3137	11	0	1047	18	0
1936-37	4252	2232	53	3087	6	0	1477	15	0
1937-38	4466	2377	53	3355	2	3	1613	9	6

No alteration has taken place in the income scale which came into operation on the 1st October, 1934, and is as follows:—

The amount recoverable to be assessed upon the net weekly income of the family, ascertained in the following manner:—

(1) Income to be taken into account:—

(a) The whole of the weekly earnings, Unemployment Benefit, or Transitional Payments, of all members of the family. For this purpose the average earnings, etc., for six weeks up to date of assessment to be used.

(b) The weekly value of any other income of, or property owned, by any member of the family.

(2) Deduct from total of above :—

(a) 4s. 0d. per week in respect of each child under 14 years of age.

(b) 4s. 0d. per week, or one-quarter of the weekly earnings of any member of the family, other than the husband, whichever is the greater.

(c) Rent and Rates.

(3) The balance to be treated as net income.

(4) Where the net income as calculated above :—

(a) Exceeds 35s. 0d. per week—Total fees to be reclaimed.

(b) Exceeds 27s. 6d. but is not more than 35s. 0d. per week—Half-fees to be reclaimed.

(c) Is 27s. 6d. per week or less—No claim to be made.

Inflamed and Discharging Eyes.

The following Table shows the cases for the last 12 years. One hundred and fifty-seven out of the total of 203 notified in the County Council's present area as Local Supervising Authority during 1937 were not severe, and as will be noted from the table, 198 were completely cured. In one case the vision was impaired, the condition being due to a corneal ulcer. Only 7 cases were in-patients in hospital; 8 were treated in the out-patient department, and the others received treatment at home.

Year	CASES				Vision un- impaired	Vision impaired	Total Blind- ness	Deaths
	Notified	TREATED						
		At Home	In Hospital					
			In- patient	Out- pat'nt				
1926	166	149	12	5	162	3	.....	1
1927	166	135	13	18	162	3	.....	1
1928	145	129	7	9	143	.....	.....	2
1929	193	170	14	9	190	.....	.....	3
1930	148	130	17	1	145	1	.....	2
1931	191	169	20	2	186	1	.....	4
1932	194	174	14	6	192	2	.....	.....
1933	185	160	19	6	183	.....	.....	2
1934	210	186	20	4	208	2	.....	.....
1935	179	162	14	3	177	2	.....	.....
1936	205	178	20	7	203	2	.....	.....
1937	203	188	7	8	198	1	.....	4

Maternity Outfits.

The arrangements made in 1930 for the issue of maternity outfits at the various Clinics were continued, and in rural areas where there was no Clinic, Health Visitors were given charge of these. During the last year 102 outfits were sold at full cost, compared with 81 the year before, one was sold at half cost, and two free issues were made.

In 1937 three outfits were bacteriologically and chemically examined with satisfactory results.

Stillbirths.

In the area now administered by the County Council under the Midwives Acts, 538 stillbirths were registered during the year. Of these, 211 were reported by midwives under their Rules, and on comparing this figure with those for the past fourteen years I find that there is little variation in this number. The result of the investigations made by the Midwives' Inspectors into the cause of these stillbirths is as follows:—

Albuminuria	...	...	...	1
Ante-partum Hæmorrhage			...	1
Cord Prolapse	...	...	...	3
Cord round Neck	...	...	...	7
Deformities	...	...	...	20
Difficult Labour	...	...	...	8
Fall and Shock	...	...	...	3
Ill-nourishment	...	...	...	2
Maceration	...	...	...	86
Malpresentation	...	...	...	11
Premature	...	...	...	53
Spina Bifida	...	...	...	5
Unsatisfactory Condition of Mother				10
History of previous stillbirths and abortions	...	...	...	1

COUNTY BACTERIOLOGICAL LABORATORY.

Dr. J. Menton, the County Bacteriologist and Pathologist, reports that during 1937, 101,490 investigations were conducted at the County Bacteriological and Pathological Laboratory, being an increase of 25,049 on the previous year. Of these, 79,868 were of a general bacteriological and serological nature ; 1,509 were in respect of biochemical and pathological investigations (excluding medico-legal work) ; 1,319 were bacteriological, biochemical, and pathological investigations in connection with medico-legal work ; and 18,794 were for the diagnosis and tests for cure of venereal diseases.

The general bacteriological and serological work was for the most part from the Administrative County, but of the milk examinations, 1,660 were undertaken for the City of Stoke-on-Trent, 77 for the County Borough of Dudley, 19 for the County Borough of Derby, and 169 for the County Borough of Walsall.

Of the tests for venereal diseases, 6,623 were from patients resident in Staffordshire, 9,610 from patients resident in the City of Stoke-on-Trent, 914 from patients resident in the County Borough of Dudley, 431 from patients resident in the Kesteven Division of Lincolnshire and 1,216 from patients resident in other areas outside the Administrative County. With regard to the tests from Lincolnshire patients, these were conducted in accordance with the sanction obtained by the Kesteven County Council for such work to be done in this laboratory.

The bulk of the bacteriological work was in relation to the direct diagnosis and prevention of infectious diseases, the supervision of the milk supply, and the bacteriological examination of drinking waters for the various Sanitary Authorities.

The General Medical Practitioners, the Medical Officers of Health, the Isolation Hospitals, the Venereal Diseases Clinics, the Poor Law Institutions and the Veterinary Officers, have made extensive use of the Laboratory.

The bacteriological, pathological and biochemical work for London Road Hospital, Stoke-on-Trent, was undertaken during the year on behalf of the City of Stoke-on-Trent Public Assistance Committee.

The various biochemical and pathological investigations were conducted for the Staffordshire General Infirmary ; Standon Hall Orthopædic Hospital ; the North Staffordshire Cripples'

Aid Society ; the Cottage Hospital, Newport, Shropshire ; the Victoria Hospital, Lichfield ; London Road Hospital, Stoke-on-Trent ; the Coroners officiating in the Administrative County, and in connection with medico-legal work.

During the year, extra strain was thrown on the laboratory by a widespread epidemic of dysentery which was due to Sonne's bacillus. This epidemic was not by any means confined to Staffordshire but was prevalent all over the country.

Extra work was also involved in connection with an outbreak of paratyphoid fever in the north of the County.

Two important researches were carried out during the year in relation to *Brucella* infections in man and animals in the County.

An additional feature of the work during the year was the increased tendency to submit swabs for examination for hæmolytic streptococci in cases of puerperal sepsis and the investigation of the causes of maternal mortality. This has opened up a new field which is bound to increase the work of the laboratory in the future.

In connection with the diagnosis of diphtheria, a new medium has been discovered for growing the bacillus by which the diagnosis of this organism can be fairly rapidly made by a colour test. As far as the investigations have gone, it appears to be reliable.

Experience has shown that in all suspected cases of food poisoning it is of the utmost importance to submit specimens of fæces and vomited material for bacteriological examination as soon as possible after the onset of the symptoms. Samples of blood should also be taken throughout the course of the illness, and in every instance the suspected article of diet, when available, should also be forwarded for investigation.

The details of the year's work are as follows :—

GENERAL BACTERIOLOGY AND PATHOLOGY.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Totals..
Water examinations	81	67	131	199	478
Milk examinations	7,500	8,475	9,065	7,057	32,097
Diphtheria	2,505	2,655	2,897	5,592	13,649
Tuberculosis	1,423	1,589	1,532	1,763	6,307
Cerebro-spinal Fever	23	12	52	8	95
Streptococcal Infections	—	—	505	1746	2,251
Ringworm	19	28	17	36	100
Typhoid and Paratyphoid Fever.....	190	229	1000	990	2,409
Brucella Infections	26	39	81	132	278
Dysentery (all types)	202	276	859	2383	3,720
Food poisoning	329	515	1622	1875	4,341
Medico-legal investigations	178	516	39	586	1,319
Veterinary Work (other than milk)	4860	2,414	789	1,756	9,819
Other Examinations	1071	860	1114	1279	4,324
TOTALS	18,407	17,675	19,703	25,402	81,187

The 6,307 examinations under "Tuberculosis" included 5,158 sputa ; 150 specimens of pus ; 103 cerebrospinal fluids ; 81 other fluids ; 353 urines ; 49 fæces ; 371 biological tests ; 16 specimens of human organs and tissues ; and 26 others.

The 278 investigations under the heading "Brucella Infections" included 210 specimens of blood from human beings, 7 of which gave agglutination reactions varying from 1 in 50 to 1 in 5,000. Sixteen samples of blood from cattle were also examined, and, in addition, 400 tests on samples of milk and 9,464 other tests were conducted.

The majority of the serological tests for food poisoning were done for exclusion purposes, and, fortunately, proved negative, but there were 10 cases of mild Salmonella infection in various parts of the County.

During the year, the laboratory was called in to investigate 17 inquest cases and 9 police cases, the latter including the examination of specimens in connection with a charge of murder.

The 4,324 "Other Examinations" included 1,332 bacteriological and cytological examinations of various body fluids and exudates ; 144 blood cultures ; 40 examinations for Vincent's Angina ; 365 general examinations of urine ; and various miscellaneous investigations.

In connection with the milk examinations, the reasons for these and the sources of the samples are shown in the accompanying tables. It will be noticed that 59 samples of "Accredited" milk gave positive biological reactions for tuberculosis.

		* Coli and/or Reductase ; or Count and Phosphatase			Biological Tests.			Grand Total.
		Satis- factory.	Unsatis- factory.	Total.	Negative.	Positive.	Total.	
For " Accredited " Standard and Licence	First Quarter	2261	625	2886	36	3	39	2925
	Second "	2264	1225	3489	181	13	194	3683
	Third "	1528	2260	3788	172	22	194	3982
	Fourth "	2335	462	2797	181	21	202	2999
For " Tuberculin Tested " Standard and Licence	First "	26	2	28	11	.....	11	39
	Second "	29	12	41	12	.....	12	53
	Third "	35	19	54	10	.....	10	64
	Fourth "	46	3	49	19	.....	19	68
For " Tuberculin Tested " (Pasteurised) Standard	First "	2	.....	2	3	.....	3	5
	Second "	5	.....	5	.....	.....	.....	5
	Third "	3	.....	3	2	.....	2	5
	Fourth "	2	.....	2	2	.....	2	4
For Pasteurised Standard.	First "	44	9	53	21	.....	21	74
	Second "	37	5	42	24	.....	24	66
	Third "	37	2	39	10	.....	10	49
	Fourth "	38	2	40	33	.....	33	73
Milk & Dairies (Consolidation) Act, 1915.	First "	340	93	433	1122	116	1238	1671
	Second "	161	138	299	1155	123	1278	1577
	Third "	91	226	317	1318	138	1456	1773
	Fourth "	250	151	401	1317	146	1463	1864
School Milks.	First "	114	28	142	.....	.....	.....	142
	Second "	15	20	35	248	9	257	292
	Third "	46	80	126	152	9	161	287
	Fourth "	86	11	97	59	2	61	158
Submitted by farmers, retailers and others for their own information.	First "	43	.....	43	2	1	3	46
	Second "	24	17	41	.....	.....	.....	41
	Third "	19	11	30	.....	.....	.....	30
	Fourth "	22	4	26	.....	.....	.....	26
Tuberculosis Order, 1925.	First "	.....	.....	.....	4	.....	4	4
	Second "	.....	.....	.....	1	.....	1	1
	Third "	.....	.....	.....	.....	.....	.....	.....
	Fourth "	.....	.....	.....	.....	.....	.....	.....
Totals ...		9903	5405	15308	6095	603	6698	22006

N.B. 79 biological tests not completed owing to the death of the inoculated animals from causes other than tuberculosis.

* The figures in these columns represent the number of SAMPLES examined.

The following tests are involved :—

Count and or Coli	...	...	...	5751
Reductase	...	...	...	14871
Phosphatase	...	...	...	249
TOTAL...	...	...	...	20871

	Count and Phosphate	Biological Test	for Acid-Fast Bacilli.	Streptococci, etc.
<i>From the Official Samplers :</i>				
(a) Milk (Special Designations) Order, 1936	9113	212	.....	.....
(b) Milk & Dairies (Consolidation) Act, 1915	698	695	.....	.....
(c) School Milk	294	202	.....	.....
<i>From Official Veterinary Inspectors :</i>				
(a) Tuberculosis Order, 1925 .....	.....	4	.....	.....
(b) Milk & Dairies (Consolidation) Act, 1915	6		2695	313
(c) Milk (Special Designations) Order, 1936	3720	3721	.....	.....
(d) School Milks	106	280	.....	.....
<i>From other Veterinary Inspectors :</i>				
(a) Milk (Special Designations) Order, 1936 .....	.....	620	618	10
(b) For information	1	3	1	1
<i>From Staffordshire Farm Institute, Producers, Retailers, etc. :</i>				
(a) "Accredited" Licence	274	.....	.....	.....
(b) For information	136	3	.....	16
<i>From Local Authorities in the Administrative County :</i>				
(a) Milk (Special Designations) Order, 1936	95	7	.....	.....
(b) Milk & Dairies (Consolidation) Act, 1915	146	113	.....	.....
(c) Tuberculosis Order, 1925 .....	.....	1	.....	.....
<i>From Authorities outside the Administrative County :</i>				
(a) Milk (Special Designations) Order, 1936	117	60	.....	.....
(b) Milk & Dairies (Consolidation) Act, 1915	602	856	281	18
Totals	15308	6777	3595	358

In addition to the above, the following examinations were also conducted :—

Examination for cause of taint .....	.....	.....	18
Examination of washings from Utensils .....	.....	.....	60
Examination of milk bottles for sterility .....	.....	.....	12
Biochemical tests for Blood .....	.....	.....	5
Examination for Acetone Bodies .....	.....	.....	1
			96

The particulars of the pathological and biochemical investigations (excluding medico-legal work) were as follows :—

PATHOLOGICAL AND BIOCHEMICAL WORK CONDUCTED DURING
THE YEAR 1937.

FRACTIONAL TEST MEALS.

Specimens of gastric contents	184
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UREA (ESTIMATION OF)

Blood	117
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Urine	92
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Cerebrospinal fluids	2
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GLUCOSE (ESTIMATION OF)

Blood	59
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Urine	12
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Cerebrospinal fluids	1
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BLOOD

Estimation of hæmoglobin	102
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R. B. C. Count	103
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Leucocyte Count	102
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Reticulocytes	81
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Differential Count	107
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Wintrobe's Volume Index	62
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Icterus Index	61
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Sedimentation Rate	15
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Fragility Test	2
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Platelets	5
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Bleeding Time	1
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Clotting time	1
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Estimation of Cholesterol	3
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Grouping	44
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Van den Bergh Reaction	6
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Bendien Test	1
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Calcium	9
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Phosphorus	5
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Hydatid Complement Fixation Test	1
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Estimation of Sulphæmoglobin	1
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URINE.

Diastase Content	1
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Acetone Content	10
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OCCULT BLOOD

Fæces	3
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Carried forward 1,193

CHEMICAL LABORATORY.

Mr. E. V. Jones, the County Analyst, reports that during 1937 by far the largest number of samples analysed was under the Food and Drugs (Adulteration) Act, 1928. Under this Act he received the following samples, as tabulated :—

SAMPLES.	Number Examined.			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Almac, Ground	1	...	1	...	...	...
Almonds, Ground	13	7	6	1	...	1
Apricots, Dried	1	...	1	...	...	...
Baking Powder	3	...	3	...	...	...
Balsam of Aniseed Compound ...	1	...	1	...	...	...
Balsam of Linseed, Liquorice and Chlorodyne	1	...	1	...	...	...
Barley	1	...	1	...	...	...
Bicarbonate of Soda	2	...	2	...	...	...
Biscuits, Ginger	3	3	...	...	...	...
Black Pudding	2	1	1	...	...	...
Boric Acid	1	...	1	...	...	...
Brawn	4	...	4	...	...	...
Butter	40	23	17	...	...	...
Cake Mixture	1	1	...	...	...	...
Cakes, Dessert Sandwich	1	...	1	...	...	...
Cakes, Egg Sponge	1	...	1	...	...	...
Cheese	1	...	1	...	...	...
„ Cheshire	3	1	2	...	...	...
„ Gorgonzola	2	...	2	...	...	...
Chocolate Vermicelli	1	1	...	...	...	...
Cinnamon	1	...	1	...	...	...
„ Ground	4	1	3	...	...	...
Cinnamon and Quinine	1	...	1	...	...	...
Cocoa	5	...	5	...	...	...
„ Essence	1	...	1	...	...	...
Cocoa, Malted Milk with Eggs ...	1	...	1	...	...	...
Coffee	10	4	6	...	...	...
Coffee and Chicory	1	...	1	...	...	...
Cornflour	2	...	2	...	...	...

SAMPLES.	Number Examined			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Cream	5	...	5	...	...	...
„ Sterilised	4	...	4	...	...	...
„ Tinned	6	...	6	...	...	...
Curry Powder	1	...	1	...	...	...
Custard Powder	1	1	...	...	...	...
Dripping	5	3	2	2	...	2
Epsom Salts	2	...	2	...	...	...
Fat, Cooking	1	...	1	...	...	...
Fish Dressing	1	...	1	...	...	...
Flour	1	...	1	...	...	...
„ Cake	1	...	1	...	...	...
„ Pea	1	1	...	...	...	...
„ Self-raising	8	2	6	...	...	...
Four-in-one Drink (Milk, Eggs Malt and Chocolate)	1	...	1	...	...	...
Fruit, Mixed Dried	1	...	1	...	...	...
Fruit Pectin	1	...	1	...	...	...
Gentian Root, Powdered	1	1	...	...	...	...
Ginger	4	1	3	...	...	...
„ Ground	6	3	3	...	...	...
Glauber's Salt	1	...	1	...	...	...
Glycerin	7	1	6	...	...	...
Golden Syrup	2	...	2	...	...	...
Gravy Browning	1	...	1	...	...	...
Groats	1	...	1	...	...	...
Honey	4	1	3	...	...	...
Horseradish Cream	1	...	1	...	...	...
Jam, Apricot	1	...	1	...	...	...
„ Blackcurrant	8	...	8	4	...	4
„ „ and Apple	1	...	1	...	...	...
„ Cherry	1	...	1	...	...	...
„ Damson	4	...	4	...	...	...
„ Plum	4	...	4	...	...	...
„ Raspberry	12	2	10	4	2	2
„ Strawberry	5	...	5	1	...	1
Jelly, Apple	1	...	1	...	...	...
Jelly, Calves Feet	1	...	1	...	...	...
Lard	25	17	8	4	3	1

SAMPLES.	Number Examined.			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Lemon Barley	1	...	1	...	...	...
„ „ Squash	1	...	1	...	...	...
Lemon Crush	1	...	1	...	...	...
„ Curd	10	...	10	...	...	...
„ Milket	1	...	1	...	...	...
„ Squash	1	...	1	...	...	...
Linseed, Ground	1	...	1	...	...	...
Liquorice Powder Compound	1	...	1	...	...	...
Macaroni	1	...	1	...	...	...
„ Egg	1	...	1	...	...	...
Margarine	2	...	2	...	...	...
Marmalade	4	...	4	...	...	...
„ Cherry	1	...	1	...	...	...
Marzalm	1	...	1	...	...	...
Milk	1939	959	980	195	98	977
„ “Accredited”	123	38	85	18	7	111
„ Pasteurised	37	33	4	1	1	...
„ Skimmed	1	1	...	...	...	...
„ Sterilised	39	36	3	4	4	...
„ “Tuberculin Tested”	17	11	6	1	...	11
Milk and Cereals	1	...	1	...	...	...
Milk, Condensed, Full Cream, Unsweetened	1	...	1	...	...	...
Milk, Condensed, Machine Skimmed, Sweetened	7	...	7	...	...	...
Milk, Malted	3	1	2	...	...	...
Mincemeat	4	...	4	...	...	...
Mint Sauce	1	...	1	...	...	...
Mustard, French	1	...	1	...	...	...
Nu-Mite (Vegetable Extract)	1	...	1	...	...	...
Nutmegs, Ground	1	...	1	...	...	...
Oatmeal	1	1	...	...	...	...
Oil, Camphorated	3	...	3	...	...	...
„ Castor	6	...	6	...	...	...
„ Cod Liver	5	...	5	...	...	...
„ Eucalyptus	1	...	1	...	...	...
„ Olive	12	...	12	...	...	...
Ointment, Calomel	2	...	2	2	...	2
„ Eucalyptus	1	...	1	...	...	...

SAMPLES	Number Examined			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Ointment, Iodine	2	...	2	...	...	...
„ „ (stainless)	2	...	2	...	...	...
„ Mercury	1	...	1	...	...	...
„ White Precipitate	2	...	2	...	...	...
„ Zinc	3	...	3	...	...	...
Parrafin, Liquid	7	...	7	...	...	...
Paregoric	1	...	1	...	...	...
„ Substitute	2	...	2	...	...	...
Parrish's Chemical Food	3	...	3	...	...	...
Paste, Chicken and Ham	1	...	1	...	...	...
„ Lobster	1	...	1	...	...	...
„ Salmon and Shrimp	1	...	1	...	...	...
„ Sardine and Tomato	1	...	1	...	...	...
Pastilles, Halibut Oil and Malt	1	...	1	...	...	...
„ Iodine and Black currant	1	...	1	...	...	...
Pepper	21	10	11	...	...	...
Pickles in Malt Vinegar	1	...	1	...	...	...
Plums, Victoria, Tinned	1	...	1	...	...	...
Prawns	2	...	2	...	...	...
Pudding Mixture	1	...	1	...	...	...
Raising Powder	1	...	1	...	...	...
Raspberry Vinegar and Olive Oil	1	...	1	...	...	...
Rice	5	5	...	...	...	...
„ Ground	8	7	1	...	...	...
Sauce, Beef Steak	1	...	1	...	...	...
Sausage	10	2	8	4	1	3
„ Preserved	4	...	4	...	...	...
„ Tomato	1	...	1	...	...	...
Semolina	7	6	1	...	...	...
Senna, Confection of	1	...	1	...	...	...
„ Ground	1	...	1	...	...	...
Shrimps, Preserved	1	...	1	...	...	...
Sild in Olive Oil	2	...	2	...	...	...
Silver Fins in Olive Oil	1	...	1	...	...	...
Spasburg Salts	2	...	2	...	...	...
Strawberry Juice Syrup	1	...	1	...	...	...
Suet, Beef	2	...	2	...	...	...
„ „ Shredded	6	1	5	1	...	1
Sugar	2	1	1	...	...	...

SAMPLES	Number Examined			No. Adulterated or below Standard		
	Total	Formal	Informal	Total	Formal	Informal
Sugar, Brown	1	1	...	...	...	...
„ Demerara	5	3	2	...	...	...
Sulphur, Flowers of	3	...	3	...	...	...
Syrup, Fruit Flavoured	2	...	2	...	...	...
Tablets, Aspirin	2	...	2	...	...	...
„ Sulphur	1	...	1	...	...	...
„ Yeast	1	...	1	...	...	...
Tapioca	1	...	1	...	...	...
Tea	32	1	31	...	...	...
Vaseline	3	2	1	...	...	...
Vinegar	1	...	1	...	...	...
„ Malt	11	6	5	...	...	...
„ Tarragon	1	...	1	...	...	...
Wine, Beef and Malt	1	...	1	...	...	...
„ Blackcurrant	1	...	1	...	...	...
„ Orange Quinine (non-alcoholic)	1	...	1	...	...	...
„ Raspberry	1	...	1	...	...	...
	2654	1200	1454	242	116	126

Of the above samples those reported against were as follows :—

ALMONDS, GROUND. Of 13 samples, 1 unofficial sample consisted entirely of earth nut.

DRIPPING. There is no legal standard for Dripping, but The Dripping Order of 1919, made under the Defence of Realm Act, required that this article should not contain more than 1 per cent. of water, nor more than 2 per cent. of free fatty acids, which figures are still used by Analysts. Of 5 samples, 2 unofficial samples were reported against. One contained 5 per cent. excess of water, and the other 2.9 per cent. excess of free fatty acids.

JAM. The jam panel of the Food Manufacturers' Federation and the Society of Public Analysts held a conference, which resulted in agreed standards and definitions for jam. These were approved in October, 1930. It was agreed that all jams, whether first or second quality, should contain not less than 68½ per cent. of Soluble Solids, and, in addition, fixed the percentages of fruit for various varieties and types as follows :—

SINGLE FRUIT JAMS—FIRST QUALITY :—						Fruit content per cent.
Apricot	...	...	...	...	...	40
Blackberry	...	...	...	...	...	38
Blackcurrant	...	...	...	...	...	30
Cherry	...	...	...	...	...	45
Damson	...	...	...	...	...	38
Gooseberry, Green	...	...	...	...	...	35
„ Red	...	...	...	...	...	40
Greengage	...	...	...	...	...	40
Loganberry	...	...	...	...	...	38
Peach	...	...	...	...	...	40
Plum, Green or Golden	...	...	...	...	...	35
„ Red	...	...	...	...	...	40
„ Victoria	...	...	...	...	...	40
Raspberry	...	...	...	...	...	38
Red Currant	...	...	...	...	...	35
Rhubarb	...	...	...	...	...	45
Strawberry	...	...	...	...	...	42

SINGLE FRUIT JAMS—SECOND QUALITY—shall contain not less than 20 per cent. of the named fruit.

MIXED JAMS :—	1st QUALITY			2nd QUALITY	
	Fruit Content			Fruit Content	
	per cent.			per cent.	
Strawberry and Gooseberry	...	40	(20/20)	20	(10/10)
Gooseberry and Strawberry	...	40	(30/10)	20	(15/5)
Raspberry and Gooseberry	...	40	(20/20)	20	(10/10)
Gooseberry and Raspberry	...	40	(30/10)	20	(15/5)
Raspberry and Red Currant	...	40	(20/20)	20	(10/10)
Plum and Apple	...	40	(20/20)	20	(10/10)
Apple and Plum	...	40	(30/10)	20	(15/5)
Blackberry and Apple	...	40	(20/20)	20	(10/10)
Apple and Blackberry	...	40	(30/10)	20	(15/5)
Any other two Fruit Jams not mentioned	...	40		20	

JAM, BLACKCURRANT. Of 8 unofficial samples, 1 Full Fruit Standard Sample contained only 19.2 per cent. fruit content instead of 30 per cent., and 3 Lower Fruit Standard samples were deficient in fruit content, containing only 17, 17, and 13 per cent. fruit content, instead of 20 per cent.

JAM, RASPBERRY. Of 12 samples, 1 Lower Fruit Standard sample contained only 19 per cent. fruit content instead of 20 per cent., and 3 Full Fruit Standard samples were deficient in fruit content, containing only 32.3, 33.2 and 34.6 per cent. fruit content, instead of 38 per cent.

JAM, STRAWBERRY. Of 5 samples, 1 Full Fruit Standard sample was deficient in fruit content, containing only 31.7 per cent. instead of 42 per cent.

LARD. Of 25 samples, 1 unofficial and 3 official samples proved to consist entirely of Foreign Fat.

MILK. Of the 1939 samples, 195 were adversely reported upon as follows :—

63 contained added water.

4 contained added water and were further deficient in fat.

114 were deficient in fat.

14 were deficient in both fat and solids-not-fat.

MILK, "ACCREDITED." Of 123 samples, 18 were reported against, of which 10 contained added water; 1 contained added water and was further deficient in fat; 5 were deficient in fat; and 2 were deficient in fat and solids-not-fat.

MILK, PASTEURISED. Of 37 samples, 1 contained added water.

MILK, STERILIZED. Of 39 samples, 4 were adversely reported upon, of which 3 contained added water, and 1 was deficient in fat.

MILK, "TUBERCULIN TESTED." Of 17 samples, 1 contained added water.

Of the 1937 Milks (including "Accredited," Pasteurised, Skimmed, Sterilized and "Tuberculin Tested") passed as genuine, 187 were below the presumptive standard in Solids-not-fat, which deficiency was shown by the Freezing Point Depression (Hortvet) to be due to natural causes, and not to the addition of water.

The average composition of the Milks (including "Accredited," Pasteurised, Sterilised and "Tuberculin Tested") was :—

		On All Samples.	On Genuine Samples.
Solids-not-fat	...	8.74	8.77
Fat	... ..	3.66	3.74

Of 40 "Appeal to Cow" samples, 15 were below the presumptive standard of 8.5 per cent. solids-not-fat and 3 per cent. fat, of which 10 were deficient in solids-not-fat, and 5 were deficient in fat.

OINTMENT, CALOMEL. Only two, both informal samples, were submitted, and proved to be Calamine Ointment, which consists of Basic Zinc Carbonate in Yellow Soft Paraffin, whilst Calomel Ointment is Mercurous Chloride in Simple Ointment.

SAUSAGE. Of 10 samples, 3 unofficial samples and 1 official sample proved to be Preserved Sausage, containing 138, 158, 320, and 180, parts per million of Sulphur Dioxide, the amount of pre-

servative in each case being well below that allowed (viz. 450 parts per million) for Preserved Sausage.

SUET, SHREDDED BEEF. Of 6 samples, 1 unofficial sample contained 3.4 per cent. excess of Rice Flour. It contained 18.4 per cent. instead of a maximum of 15 per cent.

PRESERVATIVES IN FOODS.

The Preservative in Food Regulations came into force on 1st January, 1937. These Regulations prohibited the use of chemical preservatives in food, with the exception of Sulphur Dioxide and Benzoic Acid, and in amounts not exceeding those stated. In certain cases, Sausage for example, the presence of the preservative must be declared by label or notice. It is very satisfactory to find that samples submitted this year contain no preservative other than those stated above, and in amounts well below the permissible amount. The following samples contained preservative :—

FRUIT, DRIED. This article is allowed to contain up to 2,000 parts per million of Sulphur Dioxide. Of 2 samples submitted, only 1 contained preservative, viz. 947 parts per million of Sulphur Dioxide.

JAM, including MARMALADE and FRUIT JELLY. Allowed to contain 40 parts per million of Sulphur Dioxide. Of 42 samples, only 3 contained preservative, viz. 40, 24 and 16, parts per million of Sulphur Dioxide.

MINCEMEAT. Of 4 samples, only 1 contained preservative, viz. 35 parts per million of Sulphur Dioxide, probably derived from the fruit used in preparation.

WINES (Non-Alcoholic), CORDIALS and FRUIT JUICES. These are allowed to contain either 350 parts per million of Sulphur Dioxide or 600 parts per million of Benzoic Acid. Of 10 samples, 6 contained preservative, 5 of which contained 16, 135, 162, 104, and 307, parts per million of Sulphur Dioxide, and 1 contained 430 parts per million of Benzoic Acid.

SAUSAGE. As stated above, if preservative is declared, this article is allowed to contain up to 450 parts per million of Sulphur Dioxide. The 4 samples reported against for not being labelled "Preserved" contained, 320 180, 138, and 158, parts per million of Sulphur Dioxide. Of the 4 samples submitted as preserved Sausage, only 1 contained preservative, viz. 88 parts per million of Sulphur Dioxide.

The TOMATO SAUSAGE contained 160 parts per million of Sulphur Dioxide.

SUGAR. This article is allowed to contain up to 70 parts per million of Sulphur Dioxide. Of the 5 samples submitted, only 1 contained preservative, viz. 19 parts per million of Sulphur Dioxide.

FERTILIZERS AND FEEDING STUFFS ACT, 1926

Feeding Stuffs.	Total.	Satisfac- tory.	Unsatisfac- tory.
Soya Meal	1	1	...
Decorticated Ground Nut Meal	4	1	3
Milk Meal	1	1	...
Cotton-Seed Meal	1	1	...
Decorticated Ground Nut Flakes	2	2	...
Weatings	1	1	...
Maize Germ Meal	1	...	1
Linseed Cake	1	...	1
Cotton Cake	1	1	...
	<hr/> 13 <hr/>	<hr/> 8 <hr/>	<hr/> 5 <hr/>
FERTILIZERS.			
Special Fish Manure	2	1	1
P.M.P. No. 1.	2	1	1
Meat and Bone Meal (Fine) ...	2	1	1
Do. (Coarse)	2	1	1
	<hr/> 8 <hr/>	<hr/> 4 <hr/>	<hr/> 4 <hr/>
	<hr/> 21 <hr/>	<hr/> 12 <hr/>	<hr/> 9 <hr/>

PHARMACY AND POISONS ACT, 1933. Six samples were submitted under this Act.

CORONER SAMPLES. Seven cases were sent to this laboratory consisting of 53 specimens, as follows :—

CASE I. Of 17 samples sent, 9 were examined for Volatile, Metallic, Alkaloidal and other Poisons, and 8 had special tests made on them.

CASE II. Of 10 samples submitted, 9 were examined for Volatile, Metallic, Alkaloidal and other poisons, and the other was simply tested for the presence of Carbon Monoxide.

CASE III. Consisted of 11 samples, all of which were examined for Volatile, Metallic, Alkaloidal and other poisons.

CASE IV. Of 8 samples submitted, 5 were examined for Volatile, Metallic, Alkaloidal and other poisons ; 1 was tested for the presence of Carbon Monoxide ; 1 was examined for Hypnotics and Alkaloids only, and 1 was a colourless crystalline powder, which had to be identified.

CASE V. Three samples were submitted, 2 of which were examined fully for poisons, and the other for identification.

CASE VI. Only 2 samples were submitted, both of which had to be examined for Volatile, Metallic, Alkaloidal and other poisons.

CASE VII. Two samples were sent to be examined for Arsenic, Antimony and Metallic poisons only.

POLICE SAMPLES. Only one sample was submitted, viz. a sample of Suspected Poisoned Tea, but no poison was found.

DRINKING WATERS. 344 samples were submitted by different Authorities, of which 145 were of satisfactory quality chemically ; 97 contained sewage or animal matter ; 23 were organically impure ; 39 were of doubtful quality ; 7 showed metallic contamination, of which 3 contained Lead 0.04, 0.1 and 0.4, parts per 100,000, 2 contained Zinc, 2.5 and 0.8 parts per 100,000, and 2 contained Iron, 3.3 and 10 parts per 100,000, 9 were reported as unsuitable on account of excessive hardness, containing 50.3, 59.5, 64.7, 85.5, 90.0, 113.9, 127.5, 130.6 and 131.7, degrees, respectively ; 14 contained sewage and were also organically impure ; 4 showed sewage and metallic contamination, one contained 2.74 parts per 100,000 of Iron and the other 3 contained 0.06, 1.5, and 0.085, parts per 100,000 of Lead ; 3 contained sewage and were excessively hard, the hardness being 54.0, 64.0 and 95.3, degrees, respectively ; 3 were organically impure and also showed metallic contamination, viz. 0.88 parts per 100,000 of Iron, and 0.075 and 0.3 parts per 100,000 of Lead, respectively.

RIVER WATERS. 198 samples were submitted, 137 were for full and 61 for partial analysis.

SEWAGE EFFLUENTS. 79 samples were fully analysed.

MILK. 15 Samples.

One MATERNITY DRESSING }
One TWILL BED SHEET } for Irritant Poisons.

One Sample of RAG FLOCK.

One BRICK for Lime.

Seven WATERS, SWIMMING BATH and SWIMMING POOL.

One FILTERED RIVER WATER for Drinking Purposes.

One WATER FOR MILK COOLING.

One WATER FROM POOL for Cattle Drinking.

One WATER FROM POOL for Fish.

One WATER for Hardness only.

One WATER FROM BRINE BATHS.

One WATER for Phenolic Compounds.

One FLOUR for full analysis, and specially tested for bleaching agents.

One ALUMINIUM CUP for Soluble Aluminium Salts.
 Three Samples of BLOOD for Carbon Monoxide.
 Four samples of FÆCES for Fat.
 Two samples of URINE for Lead.
 One sample of COAL.
 One FRUIT from Intestinal Contents for identification.
 One sample of GROUND QUICKLIME.

ADDITIONAL WORK.

STOKE-ON-TRENT.	Samples.
Food and Drugs (Adulteration) Act, 1928 ...	930
"Appeal to Cow" samples	4
Fertilizers and Feeding Stuffs Act, 1926 ...	8
Rag Flock Regulations, 1912	8
Fertilizers	4

NEWCASTLE-UNDER-LYME.

Food and Drugs (Adulteration) Act, 1928 ...	116
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HOSPITALS.

In my Annual Report for 1930 full details were given of the County's Hospital Services, and I have already referred, on page 18, to the County Council's proposals with regard to Public Assistance Institutions under their control.

The County's Orthopædic Hospital at Standon Hall has continued to give excellent service. Ninety-five of the beds there are allotted to tuberculous conditions, 10 to cases sent by the Education Committee, 10 to Health Visiting Committee cases, and 5 for the use of the Public Assistance Committee. The Hospital works in close association with nine voluntary After-care Centres, four of which are staffed by the same Visiting Surgeons who attend the Standon Hospital, and the in-patient orthopædic treatment undertaken by the County Council is centralised at this institution. During 1937, 161 cases were treated for the Joint Tuberculosis Board, of which 74 were discharged to attend the After-care Centres and 4 patients died. The Education Committee were responsible for 32 cases during the year, the Health Visiting Committee for 24 and the Public Assistance Committee for 7. These numbers give some indication of the lengthy period of treatment required for orthopædic cases, and in order that the education of the patients shall not suffer, all those of school age who are able to receive instruction are under the control of four teachers. In view of the nature of the disabilities of the patients, special teaching has to take the place of the ordinary methods.

The proposed extensions mentioned in my Report for 1936 have not yet been built. The Ministry of Health had several

suggestions as to the improvement of the plans and suggested that the 6-bedded block, which is to be used for the isolation of cases of infectious disease, should be attached to the main pavilion block, and the beds, which are to be in single cubicles, could be used, if required, for ordinary cases.

MATERNITY AND NURSING HOMES.

At the end of the year the number of premises registered as Nursing Homes was 20 ; three exemptions from registration previously allowed were continued. Two applications for registration were received in 1937, one being granted and the other refused, and 4 Homes were given up. Of the 20 Homes registered, 10 were for one or two beds only. The County Council have not delegated any of their powers under Section 94 of the Public Health Act, 1936, or earlier provisions, nor have any applications been received for such delegation.

County Council Maternity Units.

At the Sedgley Public Assistance Institution there is a special block known as the Rosemary Ednam Maternity Home, built by the late Board of Guardians, in which there are 9 beds for paying patients and 2 for Public Assistance cases, whilst at the Wordsley Public Assistance Institution there is a special unit containing 12 beds for private cases and 4 for Public Assistance cases. Patients whose home conditions make it inadvisable for the confinement to take place there can be sent to either of these Maternity Units by the Health Visiting Committee. Apart from these Maternity Units, the County Council have arrangements with the Mrs. Legge Memorial Home, Wolverhampton, where prospective unmarried mothers can be sent for their confinements and remain there for six months. The County Council contribute 40s. per patient per week for six weeks, the cost of the remainder of the period being defrayed from philanthropic sources. In 1937, 11 cases were admitted to this Home.

The County Council also have arrangements for the admission of patients from the Administrative County to Cleveland House, Wolverhampton, an institution for the reception of expectant mothers suffering from venereal disease. In 1937, eleven such patients were treated, eight of whom were admitted during the year.

In addition, arrangements have been made for midwifery cases to be sent from the Health Visiting Area to the following Hospitals and Maternity Homes :—

Ashbourne (Derbyshire).
Newport (Salop).
Bath Road Maternity Home, Wolverhampton.
North Staffordshire Royal Infirmary, Stoke-on-Trent.
Crewe.
Longton Cottage Hospital.
Corbett Hospital, Stourbridge.
Women's Hospital, Wolverhampton.
Birmingham Maternity Hospital.
Derbyshire Hospital for Women, Derby.

The cases so sent are limited to those who live in unsatisfactory home conditions or have some complication in connection with their pregnancy which makes it unsafe for them to remain at home. During the year, 139 patients who complied with these conditions were sent by the County Council to the institutions mentioned, and 10 to the maternity wards of Public Assistance Institutions.

In addition, thirty-one women were admitted to the Ashbourne Maternity Home, Derbyshire, but paid their own fees, the County Council merely guaranteeing any loss which the Derbyshire Authority might sustain if a patient was subsequently unable to pay the accepted fee.

MATERNAL MORTALITY.

In the accompanying table the maternal mortality rate for the Administrative County, showing the deaths per thousand (live and still) births in the last nine years, is given.

Year	Total (Live and Still) Births.	DEATHS FROM		Maternal Mortality per 1,000 (Live and Still) Births	
		Puerperal Sepsis	Other Diseases and Accidents of Parturition	Staffs.	England and Wales.
1929	13,675	17	42	4.3	4.1
1930	13,823	22	23	3.2	4.2
1931	13,338	11	29	3.0	3.9
1932	12,917	21	29	3.9	4.0
1933	11,960	19	18	3.1	4.3
1934	12,497	28	27	4.4	4.4
1935	12,751	20	35	4.3	3.9
1936	12,995	14	33	3.6	3.6
1937	13,485	15	33	3.6	3.1

It will be observed that the maternal mortality rate for 1937 is the same as that for the previous year. In view of the efforts that are being made to lessen the diseases and accidents of child-birth it should be pointed out that, dealing with such few numbers as we do, fluctuations in the rate are bound to occur from year to year. It will be observed that the rate for England and Wales was reduced last year to 3.1 as compared with 3.6 the year before, whilst the Staffordshire rate is the same.

Whilst we should not relax our efforts to lessen maternal mortality, it should be realised that, although the Commission set up by the Government to study this question reported that approximately 50 per cent. of maternal deaths were preventable, it does not follow that by taking certain steps a Local Authority can halve its maternal mortality rate in any given time. So many factors are involved that I think it would be expecting too much to promise to halve a rate as low as 3.6 deaths per thousand births, even though more and more advantage is being taken of the facilities available in the County for the supervision of pregnant women.

It is the duty of a midwife to notify all deaths that occur in her practice, whether as a midwife or as a maternity nurse. This rule only relates to the period in which she is actually in attendance, and consequently, if the patient is removed to Hospital, or not being attended at the time of death by the midwife, the death is not reported by her. During the year, 7 deaths were so reported out of a total of 48 maternal deaths registered.

The causes of death in these cases were as follows :—

Concealed Ante-partum Hæmorrhage	...	1
Embolism	... ..	4
Heart Disease and Bronchitis	... ..	1
Post-partum Eclampsia	... ..	1

In previous reports full details were given of the scheme approved by the County Council for providing the services of Obstetric Consultants in such cases where the family doctors desire their assistance at any time during pregnancy, labour, or the puerperium. This part of the scheme has only been used to any appreciable extent in recent years, and in 1937, Consultants were called out in 176 cases, as against 160 in the previous year. It is very gratifying to note that the facilities the County Council offer are so much appreciated by the general practitioner.

Under the same scheme, Ante-natal Clinics are in existence at most Infant Welfare Centres, and Midwives are encouraged to take their patients there for examination by the Medical Officer. At these Centres no treatment is given, but if such is found necessary the midwives are advised to send the patients to their own doctors.

INVESTIGATION OF MATERNAL DEATHS.

The same arrangements as for 1931 still hold good for investigating maternal deaths. This work is carried out by the Medical Officer of Health of the district concerned or by one of the Assistant Medical Officers of the County Council. Reports on each Maternal death are forwarded to the Ministry of Health when completed, for the information of the special committee set up by that department to deal with this matter. This has been referred to previously on page 63.

PUERPERAL PYREXIA REGULATIONS.

In previous Annual Reports the scheme adopted by the County Council for carrying out the duties imposed by these Regulations was explained. Until the 1st October, 1937, i.e., the date on which the Public Health Act, 1936, came into operation, cases of Puerperal Fever were notified separately, but this is no longer necessary, for as a result of the Act, conditions previously so notifiable are now notified as cases of Puerperal Pyrexia.

Puerperal Pyrexia is defined as any febrile condition occurring in women within 21 days after childbirth or miscarriage, in which a temperature of 100.4 or more has been sustained during a period of 24 hours, or has recurred during that period.

The following are particulars of the notifications during 1937 :—

		In Health Visiting Area.	Not in Health Visiting Area.	Total.
Puerperal Fever—39 weeks ended 2nd October, 1937.				
Urban Districts	...	11	9	20
Rural Districts	...	4	...	4
				<hr/> 24
Puerperal Pyrexia—52 weeks ended 1st January, 1938.				
Urban Districts	...	44	31	75
Rural Districts	...	29	—	29
				<hr/> 104

The combined case rate for Puerperal Fever and Puerperal Pyrexia per thousand total births (live and still-births) for Staffordshire is 9.49, as compared with 13.93 for England and Wales.

The midwives under their rules have also to notify to the Local Supervising Authority any rises of temperature in their practices, and 135 such notifications were received from the area now administered by the County Council. They were specially investigated by the Midwives' Inspectors, who reported that the conditions to which they were due were as follows:—

Abortion	...	...	...	...	3
Cystitis	...	...	...	...	1
Lacerated soft parts	...	...	...	...	4
Mastitis	...	...	...	...	24
Phlebitis	...	...	...	...	4
Post-partum Hæmorrhage	...	...	...	...	2
Pyelitis	...	...	...	...	2
Retained membranes	...	...	...	...	9
Rigor ...	...	...	...	...	1
Sapræmia	...	...	...	...	1
Septicæmia	...	...	...	...	10
Thrombosis	...	...	...	...	2
Toxæmia	...	...	...	...	4
Uræmia	...	...	...	...	1
Anæmia	...	...	...	...	3
Bronchial asthma	...	...	...	...	1
Bronchitis	...	...	...	...	5
Chill ...	...	...	...	...	7
Colitis	...	...	...	...	1
Constipation	...	...	...	...	4
Cough	...	...	...	...	1
Debility	...	...	...	...	2
Dental Abscess	...	...	...	...	1
Influenza	...	...	...	...	24
Measles	...	...	...	...	1
Mumps	...	...	...	...	1
Pleurisy	...	...	...	...	3
Pneumonia	...	...	...	...	3
Scarlet Fever	...	...	...	...	1
Septic finger	...	...	...	...	1
Septic rash	...	...	...	...	1
Skin eruption (severe)	...	...	...	...	1
Tonsillitis	...	...	...	...	2
Tuberculosis	...	...	...	...	3
Unsatisfactory environment	...	...	...	...	1

It will be observed that in many instances the rise of temperature could not be definitely associated with the puerperal state, but although these special investigations have taken up much time of the Midwives' Inspectors, there is little doubt that they were worth while and have resulted in no case of septic condition of the genital tract being overlooked. In each case the midwife, according to her rules, had to call in a medical practitioner, so that appropriate treatment could be given. Such cases as comply with the definition given would then be notified by the medical practitioner under the Puerperal Pyrexia Regulations, and, during the year, under the Health Visiting Committee's Scheme, a Consultant's opinion was obtained by the medical practitioner in 11 cases, 35 patients being sent to hospital.

In addition to the cases referred to above, it was ascertained that 24 patients from the Health Visiting Area were sent to hospital, and 3 were seen by a Consultant, through other agencies.

INFANTILE MORTALITY.

The infant mortality rate for 1937 was 61 per thousand live births, as against 67 in the previous year. The rate in Urban Districts was 64 compared with 68, and in the Rural Districts 51 as against 63 in the previous year. In England and Wales in 1937 the infant mortality rate was 58 compared with 59 last year. In the table below is shown the rate for the last ten years and also that for England and Wales as a whole. Also shewn in this table are the various causes of infantile deaths in Staffordshire for the same period.

TOTAL DEATHS UNDER ONE YEAR OF AGE.

CAUSES OF DEATH.	TOTAL DEATHS UNDER ONE YEAR OF AGE.									
	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Measles	13	8	17	14	15	11	13	8	7	7
Scarlet Fever	—	—	—	—	1	—	—	—	—	—
Whooping Cough	9	60	21	25	23	13	21	29	18	19
Diphtheria	2	2	3	1	2	3	—	3	4	2
Influenza	6	21	2	16	12	13	3	5	8	13
Encephalitis Lethargica	2	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Fever	3	—	4	1	2	4	—	4	9	6
Tuberculosis of Respiratory System	1	2	1	—	2	1	—	2	2	1
Other Tuberculous Diseases	22	13	12	9	14	6	7	12	8	8
Syphilis	—	—	—	2	4	3	2	2	2	—
Cancer, Malignant Disease	—	—	—	1	—	1	—	4	—	—
Cerebral Hæmorrhage, etc.	1	—	—	—	—	—	—	—	—	—
Heart Disease	—	—	—	—	—	—	—	1	—	1
Other Circulatory Diseases	—	—	—	1	—	—	1	—	—	—
Bronchitis	44	67	43	41	39	50	27	42	31	29
Pneumonia (all forms)	137	235	120	169	134	126	90	127	121	115
Other Respiratory Diseases	4	3	4	3	3	6	1	1	5	2
Ulcer of Stomach or Duodenum	—	1	—	—	—	—	—	—	—	—
Diarrhœa, etc.	79	80	78	74	86	75	55	78	66	52
Appendicitis	—	—	—	—	1	—	—	1	—	—
Cirrhosis of Liver	—	—	—	—	—	—	—	—	—	1
Other Digestive Diseases	—	—	—	12	16	14	10	10	11	6
Acute and Chronic Nephritis	—	1	1	1	2	1	1	—	2	—
Congenital Debility, Premature Birth, Malformations, etc.	412	415	401	446	436	403	401	403	465	474
Violence	12	10	17	16	26	17	15	17	20	17
Other Defined Diseases	113	124	123	62	41	49	42	58	58	35
Causes ill-defined or unknown	—	1	1	1	—	—	—	1	—	1
TOTALS	860	1043	848	896	859	796	689	808	837	789

Death rates per 1,000 Live Births.

Staffordshire

England and Wales

In my remarks on page 15 anent the table showing the mortality at different ages from various causes, I drew attention to the large number of deaths occurring in infants under one year of age ascribed to the conglomerate group of causes—congenital debility, premature birth, malformations, etc.—and it will be observed that out of 789 deaths in children under one, no fewer than 474 were due to these causes. In the table given below are shown the death rates per thousand live births during the last decade from these conditions, and it will be seen that, far from decreasing, the rate has increased, although the figures for 1937 are slightly less than those for 1936. Included in this group of causes are several conditions upon which no public health activities could have any effect, for instance, malformations are accidental causes of death which cannot be foreseen or prevented, and from the point of view of the prevention of infant mortality they have no great significance, but other conditions, such as debility, premature birth, birth injuries and difficult labours, can be affected by measures designed to safeguard the health of the mother, for both still-births and deaths of the newly born are in the main due to some maternal state acting on the child before birth. These conditions are ones with which the Maternity Service is designed to deal, and with the improvements of the facilities offered by this service in recent years one would have expected the mortality rate in such conditions as these to have fallen year by year. The other prolific causes of infantile deaths, such as bronchitis and pneumonia, have shown a tendency to decline and their numbers in the worst years are much less than those in the group I have referred to.

Year.	Live Births.	Deaths of Children under one year of age from Congenital Debility, Malformations, Premature Birth, Etc.	Death-rate per 1,000 Live Births
1928	13,742	412	30.0
1929	13,125	415	31.6
1930	13,243	401	30.3
1931	12,752	446	35.0
1932	12,335	436	35.3
1933	11,424	403	35.3
1934	11,951	401	33.5
1935	12,174	403	33.1
1936	12,441	465	37.4
1937	12,885	474	36.8

Under the rules of the Central Midwives Board, deaths of infants within the first 10 days of life are notified by midwives, and 150 deaths were so reported, the causes of death being as follows :—

Asphyxiated	8
Atelectasis	1
Congenital heart	14
Convulsions	12
Deformities	14
Feebleness and prematurity ...	87
Hæmorrhage (Cerebral)	3
Inattention at birth	2
Injuries at Birth	1
Jaundice	4
Pneumonia	2
Spina Bifida	2

CLINICS AND TREATMENT CENTRES.

The number of Clinics and Treatment Centres was set out in detail in the 1930 Report, and the changes in each subsequent year have been stated in my Annual Reports.

The changes in Infant Welfare Centres which have taken place during 1937 are given in the section of the Report below, dealing with the Health Visiting Scheme.

HEALTH VISITING SCHEME.

As I have already mentioned, the County Health Visiting Area consists of 17 Urban and 10 Rural Districts, which have a total population of 438,320.

This scheme, with its many and far reaching branches, has continued to give valuable service to the community.

During 1937, apart from the establishment of new Infant Welfare Centres and Ante-natal Clinics, there has been little change in the organisation. The existing services have, however, been developed, with gratifying results, as will be seen from the following pages, in which I have detailed the year's work.

Centres and Clinics.

There are 38 combined Centres (i.e., Minor Ailment Clinics and Welfare Centres) and 26 Welfare Centres in the County Health Visiting Area. Thirty-five of these Centres are fully equipped for ante-natal work and at 13 special sessions are held for this purpose.

In addition to the above, there is a Voluntary Welfare Centre at King's Bromley which is not included in the County Scheme.

The work of the County Infant Welfare Centres and Ante-natal Clinics is chiefly educational, cases requiring treatment being sent to their family doctor, except patients suffering from crippling conditions and those who must be seen by an Ophthalmic Surgeon.

During 1937, four new Infant Welfare Centres were established as follows :—

Great Barr	...	.....	Fortnightly	From 4 : 6 : 37.
Gnosall	...	...	do.	„ 7 : 7 : 37.
Branstone	...	...	do.	„ 7 : 6 : 37.
Stretton	...	...	do.	„ 31 : 5 : 37.

As the Featherstone and Shareshill Centres were in close proximity, and consequently served practically the same area, it was decided to close the latter. Formerly the Centre at Featherstone was open fortnightly, and weekly sessions were provided there when this re-organisation took effect. These two Centres were taken over by the County Council when the Cannock Rural District was added to their Health Visiting Area in 1934.

In two instances, viz., at Kinver and Tamworth, Centres were transferred to other premises, and in each case the present accommodation is more satisfactory.

I have already mentioned that special Ante-natal Clinics are now held at 13 Centres, an increase of 4 over the previous year, and I give below particulars of those which were commenced during 1937 :—

Quarry Bank	...	...	Fortnightly	From 27 : 5 : 37.
Tamworth	...	...	do.	„ 3 : 11 : 37.
Lichfield	...	...	do.	„ 12 : 11 : 37.
Cheadle	...	...	do.	„ 22 : 11 : 37.

In addition, as from the 2nd June the sessions at Chase-town were increased from monthly to twice monthly, and at Brownhills, where fortnightly sessions had previously been held, from the 28th May the Clinic was opened weekly. The establishment of the new Clinics at the end of the year made it necessary to make an alteration at Willenhall, and the Clinic is now held all day on Tuesday each week, instead of afternoon sessions on Tuesdays and Fridays, which has proved quite satisfactory.

During the year, 1,977 expectant mothers attended the Ante-natal Clinics, with a total attendance of 5,865, and the following table indicates the nature of the complaints found. When treatment is required, the patient is referred to her own doctor, through

the medium of the midwife, if one has been engaged, except for dental conditions. Treatment of the latter can be given under the County Council scheme, and the patient is offered the facilities provided.

Abnormal Urine—Albumin	...	...	123
Sugar	...	...	34
Anæmia	...	...	146
Bronchitis	...	...	67
Blepharitis	...	...	1
Conjunctivitis	...	...	4
Chorea Gravidarum	...	...	1
Constipation	...	...	305
Contracted Pelvis	...	...	127
Dental Caries	...	...	838
Gastritis	...	...	20
Glossitis	...	...	1
Goitre	...	...	66
Hæmorrhoids	...	...	27
High Blood Pressure	...	...	151
Hydramnios	...	...	1
Hyperemesis	...	...	15
Insomnia	...	...	35
Mastitis	...	...	4
Nipples abnormal	...	...	30
Pyelitis	...	...	2
Tuberculosis	...	...	2
Vaginal Discharge	...	...	135
Valvular Disease of the Heart	...	...	89
Varicose Veins	...	...	246
Venereal Disease	...	...	5
Whooping Cough	...	...	1

In the table at the end of the report will be found details of the work of the Centres and Clinics, from which it will be seen that during 1937, apart from the attendances at Ante-natal Clinics mentioned above, 50,658 attendances were made by children under one year and 48,347 by children between one and five years.

Rural Ante-natal Scheme.

The object of this scheme, which operates mainly in Rural Districts where there are no Ante-natal Clinics, was explained in detail in my Report for last year, when I mentioned that it related only to the examination of uninsured expectant mothers. An insured woman is entitled to receive examinations by her Panel doctor free of charge, but the scheme was not complete

inasmuch as no reports were submitted in respect of such cases, so that there was likely to be a difficulty where other facilities provided by the County Council were found to be necessary as a result of the medical examination. To overcome this, in October the Committee agreed to pay the general practitioners for antenatal reports on their "panel" patients, and the wisdom of the decision is manifest.

This is the second year's complete working of the scheme, and 432 expectant mothers were examined, compared with 464 in 1936, which cannot be considered satisfactory. However, with the advent of the arrangements made under the Midwives Act, 1936, and the increased co-operation between the midwives and the Local Authority, an improvement has been effected which should be evident when the 1938 statistics are prepared.

As a result of the examinations, it was found that 292 confinements could safely take place at home with a midwife only in attendance, but it was necessary to give advice to 42 patients. In 114 cases further examinations were recommended, and, as a result, in 21 instances the doctors considered it necessary to be present at the confinements, whilst one further patient was recommended for institutional treatment, and another for X-ray examination.

The primary examinations revealed that 6 patients should be delivered by doctors, and in 9 other cases it was considered that it was undesirable or unsafe for the confinement to take place at home, whilst 11 patients were referred to Consulting Obstetricians.

In addition, 18 of the patients included above required dental treatment, and they were offered the facilities afforded by the County Council Scheme. Four were also recommended extra nourishment.

Orthopædics.

The County Council have not established any Orthopædic Clinics, but have arrangements with voluntary bodies who have established Clinics at Leek, Stourbridge, Hartshill, Birmingham, Stafford, Lichfield, Tamworth, Walsall and Dudley, where cases are received on payment.

One-hundred-and-twenty-four new cases, as against 94 last year, were sent to Orthopædic Clinics for out-patient treatment in the first instance, as follows :—

Arthritis	...	...	...	...	2
Bow Legs	...	...	...	...	17
Deformities of Feet	...	...	...	...	28
Knock Knees	...	...	...	...	31
Paralysis	...	...	...	...	13
Rickets	...	...	...	...	10
Torticollis (Wry-neck)	...	...	...	...	5
Miscellaneous	...	...	...	...	12
Examined but treatment not necessary					6

It will be noted that only 10 cases of rickets are given in this list, but of course there are many more conditions, classified under other headings, of which rickets has probably been the primary cause.

I give below details of the out-patient attendances etc., during the year :—

No. of children on books at 31-12-36	...	...	156
New cases referred during 1937	...	...	124
			<hr/>
			280

Removals on account of :—

Discharged cured	...	...	19
Left the area	...	...	8
Attained school age	...	...	33
Treatment refused	...	...	20
Died	...	...	4
No treatment necessary	...	...	7
			<hr/>
			91
			<hr/>
No. of cases at end of year	...	...	189
			<hr/>

The total number of attendances at Out-patient Clinics during the year was 2,612.

Twenty-four children received in-patient treatment at Standon Hall Orthopædic Hospital, sixteen of whom were admitted during the year. As mentioned in previous reports, pending the extension of accommodation at Standon Hall, the Health Visiting Committee have authorised the use of five beds at outside institutions. These are used mostly for short stay cases. In this way nineteen other children under five years of age received in-patient treatment, thirteen being admitted during 1937. Eleven patients were treated at the Hartshill Orthopædic Hospital, six at the Birmingham Cripples' Hospital and two at St. Gerard's, Coleshill

Artificial Light Treatment.

The facilities available for ultra-violet light treatment are confined to the Leek and Lichfield areas. The Health Visiting Committee have a fully equipped Clinic at the Lichfield Infant Welfare Centre, whilst at Leek an arrangement has been entered into with the Cripples' Aid Society there for the treatment of our cases. At each place the patients are under supervision by our Assistant Medical Officers.

During 1937, 39 children under 5 years of age received treatment at the Lichfield Clinic, 26 being referred for the first time, and the total number of attendances was 667. At Leek 33 patients were treated, including 24 new cases, 879 attendances being made.

The ailments for which the patients were referred to the Clinics are shown below, and in the majority of cases the conditions improved under ultra-violet radiation :—

Bronchitis	...	...	...	...	1
Cervical Adentitis	...	...	...	...	5
Debility and Malnutrition	...	...	...	...	34
Delayed Dentition	...	...	...	...	1
Enlarged Glands and Tonsils	...	...	...	...	3
Marasmus	...	...	...	...	3
Rickets	...	...	...	...	24
Tabes Mesenterica	...	...	...	...	1

Ophthalmic Treatment.

The eye cases in children under 5 years of age, seen during the year by the County Ophthalmic Surgeon, included 98 new ones. For 63 of these, mostly cases of squint, glasses were prescribed, and the Health Visiting Committee provided them in 7 cases. In two other cases half the cost was allowed. Generally, where there was unilateral squint the sound eye was occluded, but if this was found to be impracticable, atropine was inserted weekly until it was found possible to have the eye occluded. These children were kept under constant supervision.

In 16 of the remaining 35 cases advice or treatment was necessary, and this was given.

Patients seen in previous years were re-examined during 1937, and the total number of attendances at the Clinics, including both old and new cases, was 299.

Ophthalmia Neonatorum.

Ophthalmia Neonatorum is defined as a purulent discharge from the eyes of an infant occurring within twenty-one days

from the date of its birth, and is a notifiable disease. Prior to the 31st March, 1937, notification was made to the Local Medical Officers of Health, but as it is the function of the Welfare Authority to provide for the home nursing and hospital treatment of such children, the Minister of Health made Regulations, which came into operation on the 1st April, 1937, securing that in all cases the notification is sent direct to the Medical Officer of Health of the Welfare Authority concerned. This ensures that any assistance required is available at the earliest possible moment.

During 1937, 57 such cases occurred in the County Health Visiting Area, and in 48 instances home nursing was carried out by the Health Visitors. Four children attended hospitals as out-patients and four were admitted for treatment. As to results, in 54 cases the vision was unimpaired and in one the sight was affected, the remaining two children being still under treatment at the end of the year. Similarly, at the close of 1936 two patients were being treated, and the result in each case was entirely satisfactory. The County Council has arrangements for the treatment of this condition at the North Staffordshire Royal Infirmary, Stoke-on-Trent, The Birmingham and Midland Eye Infirmary, and the Wolverhampton and Midland Counties Eye Infirmary. Except in one instance, however, the children who were referred to hospitals this year were sent through other channels.

Dental Treatment.

This scheme has now been in operation for two complete years and statistics show that the work is increasing. In 1937 the expansion was mainly in connection with the treatment of expectant and nursing mothers, for, as will be seen later, more than double the number treated in 1936 were dealt with this year. Even so, it is doubtful whether peak figures have yet been reached.

As regards treatment, the administration has continued unchanged, and the only extension was the establishment of additional special clinics at Chasetown and Great Barr. The Clinics have been well attended and the loss of time due to broken appointments has diminished. This is due to the fact that mothers are now learning the advantages of the scheme, and reluctance to obtain dental treatment during pregnancy is being overcome.

The County Council have continued to undertake a similar service for the Welfare Committee of the Stafford Borough Council, at an agreed payment.

Towards the end of 1935 the County Council decided to equip a dental laboratory, which was to be housed in the Public Health

building, and to appoint a Dental Mechanic, but the question of accommodation made it impossible to proceed. However, when the Education Committee's new Clinic was ready for occupation, a temporary building in Mill Bank, Stafford, previously used by them for dental purposes, became available, and immediate steps were taken to convert it into the workshop, the mechanic commencing duty on the 1st September, 1937. With the enormous increase in the number of adult patients dealt with, towards the end of the year it was found that one mechanic could not possibly cope with the work, and in January, 1938, the Committee decided to make an additional appointment.

The treatment of expectant mothers is worthy of special comment, and I have already mentioned that fear of dental treatment during pregnancy is being overcome. There are, however, other reasons for broken appointments, i.e., young children cannot be left at home, a reluctance to continue once pain has been relieved, the question of family circumstances should dentures be necessary, etc., and as far as possible every effort is made to remove these difficulties. During the year, 829 mothers were referred for treatment, and it is probable that those who have not already presented themselves for treatment will eventually do so, but the delay in obtaining relief from oral sepsis and pain which invariably occurs is to be deplored. The condition of the mouths treated this year may be gauged from the fact that the average number of extractions per case was nine, and in almost every instance there was some degree of pyorrhœa. In certain districts the conditions found were exceedingly bad, and in one district where a large number of patients were treated many were found to have very few permanent teeth remaining—one mother had only two teeth, one had five, three had six, two had ten, whilst the remainder had either no teeth or less than twenty. No difficulty was experienced during the treatment, but, generally, the patients are very apprehensive and require more attention than the ordinary patient. There were no cases of syncope, and only five of post-extraction hæmorrhage. In this branch of the health service the County Bacteriological Laboratory is again rendering valuable assistance, for during 1937 thirty-four swabs taken by the Dental Surgeons were examined for hæmolytic streptococcal infection. The result in each case was negative. In this connection I would mention that many patients required preliminary treatment with antiseptic mouth-washes before operative work could be commenced.

I mentioned last year the arrangements which have been made whereby patients requiring extensive treatment are admitted to suitable institutions where general anaesthetics are

administered by the Medical Officers. This has proved of benefit and advantage has been taken of the facility. As regards local anæsthetics, it was considered advisable to exclude those containing adrenalin, and satisfactory results have been obtained with solutions of procaine with cobefrin.

The patients express their gratitude for the treatment given, and are appreciative of the fact that their general health is perceptibly improved following the removal of septic teeth.

The dental treatment of "toddlers" is also covered by the scheme, and here again the numbers have increased. This is probably due to the propaganda consequent upon the other aspect of the service, for women who have benefitted by the facilities provided readily consent to their children having treatment. Although progress is reported, it is hoped that the growing "tooth consciousness" will result in a still greater attendance of children under 5 years of age, for it has been noticeable that in almost every instance the "toddler" is only taken to the Clinic after a bout of toothache when extraction is the only remedy. The difficulty experienced in getting children to wash out their mouths following extractions, tends to prove that they are not taught how to perform this operation or to clean their teeth, and in this branch of dental hygiene it seems that practically all has yet to be taught the parents.

The following are particulars of the treatment given in the County Health Visiting Area by the staff of the County Council during 1937 :—One thousand and thirty-three patients were dealt with, comprising 760 expectant and nursing mothers, and 273 "toddlers," as compared with 362 and 229, respectively, during 1936.

EXPECTANT AND NURSING MOTHERS.

Area.	No. treated.	Total Attendances.	Extractions.	Fillings.	Scalings.	Sundries.	Dentures.	
							New.	Re-pairs.
Audley	68	390	300	—	15	203	34	1
Biddulph	14	44	94	60	—	8	4	—
Brierley Hill.....	76	327	626	4	5	78	18	—
Brownhills	148	657	925	—	2	190	36	1
Darlaston	42	174	314	—	3	100	30	—
Leek	10	51	102	2	2	32	8	—
Lichfield	126	648	1227	14	3	394	24	2
Quarry Bank	57	207	305	—	5	106	30	1
Sedgley	58	252	477	52	13	100	24	—
Stafford	23	80	144	4	—	24	6	—
Tamworth	31	104	340	4	1	71	19	—
Uttoxeter	1	4	7	18	—	—	—	—
Willenhall	106	582	1163	—	10	174	42	3
Totals	760	3520	6024	158	59	1480	275	8

In 64 instances patients were admitted to Institutions for the administration of general anæsthetics.

As will be seen from the above table, 275 new artificial dentures and repairs to 8 old dentures, were completed and the approximate value of the work was £432 10s. 0d. In each case the patient's circumstances are investigated to ascertain whether a contribution should be demanded from her.

TODDLERS.

Area.	No. treated.	Parents attended	Temp. teeth extracted.	Fillings.	Dressings of Silver Nitrate.	Advice.
Audley	4	3	3	2	—	—
Biddulph	16	16	24	—	—	1
Brierley Hill	20	20	35	—	28	—
Brownhills	35	34	53	—	—	1
Darlaston	9	9	13	—	—	1
Leek	27	27	29	9	21	1
Lichfield	44	44	70	—	12	3
Quarry Bank	19	19	30	—	12	1
Sedgley	46	46	90	—	114	4
Tamworth	8	8	14	—	11	—
Uttoxeter	16	20	35	1	2	—
Willenhall	29	29	53	—	6	—
Totals	273	275	449	12	206	12

Health Visiting Scheme.

Payment of Midwives' Fees.

Previous to the inception of the County Council's Scheme under the Midwives Act, 1936, in the Health Visiting Area midwives were able to receive fees from the County Council under two headings, viz., where application was made and it was found on investigating the patient's circumstances that she could not afford to pay, and where a case was lost as a result of County Council activities. With the advent of the new service, the payment of fees under this scheme became unnecessary, as far as salaried midwives were concerned, and the Committee considered the position as it affected those who continued independently. Obviously it was inconsistent to allow them fees in necessitous cases, and it was decided to dispense with the practice from the time the salaried service commenced in each particular area. The compensation fee of 10s. allowed for the loss of a case, however, was in a different category, for in nearly every instance the amount was paid when a patient was admitted to hospital as a result of action originating from an Ante-natal Clinic. Therefore, in order to retain the co-operation between the independent midwives and the Clinics, it was agreed this arrangement should continue as before.

During 1937, 25 applications for the compensation fee of 10s. were acceded to, and in 21 necessitous cases midwives fees amounting in total to £29 7s. 6d. were paid. The latter were, of course, in respect of the period prior to the commencement of the new midwifery arrangements.

Health Visitors.

At the end of 1937 there were 57 permanent whole-time Health Visitors, an increase of one over the previous year, and one temporary whole-time Health Visitor. The addition to the permanent staff took place on the 1st January and was mainly due to the increased sessions of Centres and Clinics in the Willenhall Urban District in consequence of which it was found the domiciliary work, etc., in that area could not adequately be performed. As regards the temporary Health Visitor, this was necessitated by a re-organisation in the Tutbury Rural District as from the 1st June, when a new area was formed, to which, on the 19th August, were added the Parishes of Barton-under-Needwood, Dunstall and Wichnor, previously served by a part-time Health Visitor. A temporary appointment was made in view of the fact that as a result of the Midwives Act, 1936, the County Nursing Association agreed to form local Nursing Associations in large sparsely populated portions of the Leek Rural District where a whole-time Health Visitor was fully occupied, and to

assist them it was decided to transfer the health visiting duties to the District Nurses. These arrangements were not complete until the 1st February, 1938, when the whole-time Health Visitor was transferred to the area in the Tutbury Rural District. On the 31st December, 1937, the whole-time staff, two of whom are Lecturers on Mothercraft, served a population of approximately 368,700.

There are 39 part-time Health Visitors serving a population of approximately 69,620, mainly in the Rural Districts. These are District Nurses appointed by District Nursing Associations, who, before they took up their duties, received special instruction at Sedgley under the direction of the whole-time Health Visitors there.

On reference to the table at the end of the Report the districts and populations served by both whole-time and part-time Health Visitors are set forth.

The visits paid by the Health Visitors during the year were as follows :—

To expectant mothers :—

(1) First Visits	...	...	...	2,230
(2) Total visits	...	...	...	6,730

To infants under one year :—

(1) First visits	7,064
(2) Total visits	63,848

To children, one—five years :—

Total visits	110,117
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Lectures.

Talks on mothercraft, which were instituted seven years ago, have continued at the Infant Welfare Centres. During the year talks were given at 419 sessions of 56 Centres in various parts of the Health Visiting Area. There were 11,571 attendances of mothers at the lectures, in addition to which, on a few occasions when groups could not be formed owing to small attendances, individual talks were given. The syllabus of these talks is comprehensive and covers ante-natal care, the feeding and care of infants, clothing of infants (including demonstrations in cutting out clothing, etc.), the care of the toddler, and hygiene of the home. From the interest displayed, and the questions asked at the end of these lectures, it is obvious that they fulfil the purpose for which they were started, viz, to educate the mother to a better understanding of herself and her child.

INFANT LIFE PROTECTION.

In the Health Visiting Area the Health Visiting Inspectors, the whole-time Health Visitors, and the part-time Nurses, have been appointed as Infant Life Protection Visitors. The work of supervision and visitation of the children who are boarded out under the appropriate Section of the Public Health Act, 1936, is carried out by these Visitors. A report on the preliminary examination is made by the Health Visitor after an application is received for registration of the foster-home, and monthly visits are subsequently paid by her. Regard is had to the general health and well-being of the children, and the suitability of the premises for their reception. The County Council also have power to limit the number of children, under nine years of age in such a home.

The work carried out under this scheme during the year is shown in the following table :—

Number of children on Register at the end of December, 1937	52
Number of reports on visits to children received during the year 1937	577
Number of new cases during 1937, for which preliminary reports were sent in by Health Visitors	15
Number of foster-parents on Register at end of 1937	52

VENEREAL DISEASES.

Under the County Council scheme for the treatment of Venereal Diseases, agreements have been made with the North Staffordshire Royal Infirmary, Stoke-on-Trent ; the Staffordshire General Infirmary, Stafford ; the Royal Hospital, Wolverhampton ; the General Hospital, Walsall ; The Guest Hospital, Dudley ; and the Corbett Hospital, Amblecote, for the establishment of special clinics.

The following table shows the number of Staffordshire cases treated during the year, including cases from the County who attend clinics outside the area.

STAFFORDSHIRE CASES TREATED FOR VENEREAL
DISEASES DURING THE YEAR 1937.

CLINIC	Syphilis.	Soft chancre.	Gonorrhoea.	Non-Venereal.	Total.	Attendances.
Birmingham General Hospital	9	—	15	41	65	1718
Burton-on-Trent General Infirmary	2	—	4	—	6	132
Derby Royal Infirmary	3	—	1	—	6	142
Dudley Guest Hospital	9	1	35	37	82	3676
Stafford (Staffordshire General Infirmary)	12	1	33	22	68	2701
Stoke-on-Trent (North Staffordshire Royal Infirmary)	34	2	75	69	180	11526
Stoke-on-Trent (Municipal Clinic, Shelton)	3	—	37	26	66	2891
Stourbridge (Corbett Hospital)	4	—	15	3	22	1670
Walsall General Hospital	11	1	26	22	60	1959
Wolverhampton Royal Hospital	27	—	79	106	212	6669
Totals	116	5	320	326	767	33084

In comparing the total number of cases treated at the clinics with those for last year, it has been found that 767 patients were treated as against 778. It is gratifying that the attendances in proportion to the new cases still maintain a high ratio. These figures show that the patients are anxious to get the best out of the treatment.

At the end of 1937 there were 39 medical practitioners authorised to receive free supplies of Salvarsan or its substitutes for the treatment of Staffordshire cases in their practices ; 9 doctors on the list availed themselves of this provision during the year.

WATER SUPPLIES.

Although an actual drought was not experienced during 1937, the rainfall towards the end of the year was rather below normal, and, in consequence, the replenishment of the wells in Rural Districts was not such as to relieve Local Authorities of all anxiety.

In my Annual Report each year I have given details of improvements in the water supplies of Urban and Rural Districts, and of unsatisfactory conditions for which remedial measures

were undertaken or were to be considered in the near future. For the most part this information has been extracted from the Annual Reports of District Medical Officers of Health, and below are given details for 1937 :—

RUGELEY U.D.—In my report for 1936, I mentioned that there were about 100 houses in the Brereton area which were supplied with water below the required standard of purity, and remarked on the action it was proposed to take. A number of these houses have now been provided with a satisfactory supply from the mains of the South Staffordshire Waterworks Company, and it is hoped that others will be dealt with similarly in the near future. I would mention that it is not practicable to connect the whole of the properties, for some have been scheduled for demolition, and the Urban District Council are at present erecting dwellings to re-house the tenants who will be displaced.

STAFFORD M.B.—“Boring operations for a new source of water supply are still proceeding. A well 7-feet diameter and 250 feet deep has been sunk, and the work of driving headings to augment the yield is proceeding.”

UTTOXETER U.D.—“The growth of the town has left little margin between supply and demand, so that the whole question of water supply will require consideration in the near future.”

WILLENHALL U.D.—The Medical Officer of Health reports that the houses which have previously obtained their water supplies from polluted wells are either to be demolished or connected to the main water supply.

CANNOCK R.D.—“It was decided by the Council to extend the water main to serve the Gailey area, where the supplies from wells and pumps is bad.”

CHEADLE R.D.—The approval of the Ministry of Health was obtained to a scheme for the supply of water at Waterfall, Calton and Swinscoe.

Examination of the water supply at Consall village revealed pollution. A scheme was proposed for extending the existing main at Wetley Rocks, but owing to the cost, the Council deferred proceeding with this. It is hoped that steps will be taken at an early date either adequately to protect the present supply or to provide water from a new and unpolluted source.

The Medical Officer of Health reports that the method of supplying water to Dilhorne and Oakamoor is not entirely satisfactory.

With regard to Cheddleton water supply, a bore-hole has been sunk at Wallmires Pumping Station and the Council is proceeding to instal the necessary electrical machinery for pumping the water from this borehole.

LEEK R.D.—Ministry Inquiries were held during the year with regard to schemes for supplies of water to Alstonefield and Wetton, and Longnor. These were opposed by the owners of the land on which it was proposed to erect the reservoirs. The scheme for Longnor was approved, but not that for Alstonefield and Wetton. It is understood that the Council have instructed their Engineer to provide an alternative scheme for the two last named areas.

Although the Inquiry with regard to the water supply at Hill Top, Brown Edge, following a representation by householders to the Ministry of Health, was held in 1937, and the Council were subsequently directed by the Ministry to provide a water supply for this area, the matter has been delayed and there is no water yet available.

Apart from the areas mentioned above, the Rural District Council ought, in the near future, to deal with water schemes in the parishes of Horton, Butterson and Longsdon.

LICHFIELD R.D.—Schemes for extending the South Staffordshire Waterworks mains were completed in the following districts: Alrewas (Orgreave), Clifton Campville, Drayton Bassett, Edingale, Elford, Harlaston, Little Harlaston, Mavesyn Ridware (Blithbury), Thorpe Constantine and Whittington (Huddlesford and Williford). Schemes for supplying Alrewas (Alrewas Hayes), Clifton Campville (Statfold), Edingale (Croxall), Harlaston (Hog's Hill) and Longdon (Stoneywell), were still under consideration at the end of the year.

NEWCASTLE R.D.—“During the year, schemes have been carried out in the parishes of Ashley, Mucklestone, Tyrley and Chorlton. In the last-named parish three minor extensions are contemplated.

“A scheme for the augmentation of the supply in Audley parish was nearing completion at the end of the year.

“A scheme has been proposed for the provision of a main supply in the Baldwins Gate and Barr Hill portions of Madeley parish, and will shortly be submitted to the Ministry.”

SEISDON R.D.—The supply to the Stourton and New Wood areas has been improved by the laying of a new water main connected to the South Staffs. Waterworks Company's supply in Prestwood Road, Kinver.

STAFFORD R.D.—I mentioned in my report for 1936, that an Inquiry had been held with regard to a water supply scheme for the large western portion of the Stafford Rural District. The approval of the Ministry was obtained and a borehole is being sunk near Gnosall. It is hoped that the progress of this scheme may be expedited during 1938, so that water may be available in the near future to those areas which are badly in need of a pure supply.

During the year, a Ministry Inquiry was held with regard to a supply of water in the eastern area, i.e., Weston, Stowe, Hixon, Fradswell and Gayton. The Minister of Health was unable to approve this scheme, and the Council are now considering obtaining a supply from the Stafford Borough Mains.

STONE R.D.—Work on the Eccleshall Scheme, mentioned in my last report, has been delayed, and water from this source was not available during 1937. When completed, this Scheme will serve Eccleshall, Croxton, Chebsey, Norton Bridge and Shallowford.

The Council are still considering the supply of water to Yarnfield, where there is no water suitable for drinking.

The Medical Officer of Health reports that Hilderstone, Milwich, Saverley Green, Sandon, Burston, Moddershall and Fair Oak, are all without suitable water supplies. Schemes are under consideration for supplies to Hilderstone, Fulford (where there is a good supply but the water has to be fetched some distance by the householders), Saverley Green and Fair Oak.

UTTOXETER R.D.—A scheme for a public supply for the parish of Leigh was submitted to the Ministry of Health during the year, but has not yet been approved. Water supply schemes for Ellastone and Wootton are still under consideration by the Council.

RIVERS POLLUTION PREVENTION.

A Hydrographical Survey of the River Trent was instituted by the Standing Committee on River Pollution of the Ministry of Agriculture and Fisheries in 1923, and has been continued yearly since that date.

In the accompanying Table the percentage of oxygen saturation in the streams at certain fixed points is shown for the last 10 years. The extent of the pollution can be judged when it is remembered that a percentage saturation of oxygen below 65 means that the stream is too polluted to support fish life. On

reference to the Table it will be noticed that the heavy pollution of the streams that is now taking place in the industrial areas is observed for a considerable distance down stream. Unfortunately, as the streams in the industrial areas are so small, the degree of purification of effluents before discharge into them has to be much greater than if they found their way into a large river, and, consequently, the expense is correspondingly greater. In last year's report a summary of the work undertaken by the various Sanitary Authorities during the year was given, and this year similar details are included in the succeeding paragraphs. The greater part of this information is culled from the Annual Reports of the District Medical Officers of Health.

LOCATION.	1928		1929		1930		1931		1932		1933		1934		1935		1936		1937	
	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.
River Trent at Strongford Bridge	6.5	30.0	16.5	6.0	19.0	26.0	50.0	20.0	21.6	37.2	46	28	12	30	27	19.5	45.5	44	33.9	35.9
River Trent at Darlaston above Stone	17.0	14.0	26.0	19.0	28.5	37.0	39.5	56.5	1.3	36.4	27	20	13	55.5	15.5	24.5	51.5	51	37	30.1
River Trent at Aston, below Stone	29.5	50.5	16.5	25.0	13.5	34.0	36.5	59.0	6.6	28.2	21	15	Nil	25	8.7	14.5	46.5	48	32.3	23
River Trent at Great Haywood Mill, before receiving River Sow	14.0	41.5	13.5	31.5	33.5	39.0	50.5	56.5	36.5	37.8	32	10	17.5	30	12	31.5	35.5	53	50	35.4
River Sow at L.N.E. Railway Bridge	63.0	59.5	79	62	69.5	53.5	64.0	67.5	71.1	67.0	75	107	70	78	98	80	60.3	73.9	77.6	70.5
River Sow at Brick Bridge	88.5	67.5	66	52	54.5	59.5	58.0	58.0	87.9	63.5	66	66	81	70	86	59	67.8	79.1	75.3	79
River Penk at Radford	66.5	64.0	91	73	81.0	59.5	74.0	72.5	77.9	71.0	65	76	82.5	66.5	79	74	70.8	83.6	79.1	79.5
River Sow at St. Thomas	57.5	32.5	44	42	49.5	42.5	66.5	62.5	68.1	60.0	33	61	49.5	61.5	68	63.5	65.4	74.7	56.4	73.5
River Trent at Weetman's Bridge, near Little Haywood	35.0	48.0	38.5	29.5	51.5	49.0	51.0	57.5	39.0	44.5	36	36	29	36	17	39.5	44	51.5	47.5	46.6
River Trent at High Bridge, below Rugeley Sewage Works	45.5	42.0	36.5	29.0	57.5	53.0	57.5	67.5	47.1	54.5	43	45	69.5	55	50	58.5	52.5	55	52.7	51.6
River Trent at Wychnor Bridge, above confluence with River Tame	80.5	80.5	62	59.0	79.0	75.5	67.0	81.0	52.2	58.6	58	54	78.6	54	73	60.5	62	71	64	63.5
River Tame at Walsall Road Bridge, Perry Barr, before entering Birmingham	19.0	26.0	25.5	42.5	50.5	30.0	5.0	28.5	32.6	23.1	19	23	7.4	13.5	32	16.5	48.1	27.4	27	43
River Tame at Chetwynd Bridge, above confluence with River Trent	39.0	47.5	39	36.5	50.0	51.5	61.0	61.5	28.0	52.0	37	50	56	53.5	41	69.5	59	57	41	64.5
River Trent at Walton Bridge, below junction with River Tame	56.5	57.5	47	45.5	61.0	53.5	57.0	71.5	29.7	57.0	49	59	64	56	53	69.5	60.5	63	63.2	67
River Trent at Burton Bridge (North Boundary of Burton-on-Trent)	66.5	56.5	48	52.5	63.5	54.0	58.0	69.5	50.6	57.7	52	59	74	49	57	71	66	61	62.7	65
River Dove at Monks' Bridge, above confluence with River Trent	104	105	84	78.5	104	77.5	87.0	96.0	89.7	97.4	102	100	109	97.5	104	102	93	97	91.8	102
River Trent at Willington Bridge, below confluence with River Dove	88.5	73.5	76	62	84.0	65.0	67.5	78.5	57.0	71.7	73	68	73	60.0	75.5	76.5	69	77	67.7	69

RIVER MERSEY WATERSHED.

BIDDULPH U.D.—Modifications and amendments have been necessary to the scheme mentioned in my report for 1936, but it is hoped that its submission to the Ministry will take place at an early date, and that the work will be commenced as soon as possible after the approval of the Ministry is obtained.

KIDSGROVE U.D.—*Talke Ward*.—The scheme for the treatment of sewage for this ward, mentioned in my report of last year, is now in hand.

NEWCASTLE R.D.—*Audley Parish*.—Owing to the high cost of the scheme proposed for dealing with the sewerage and sewage disposal in this parish, no decision has been reached by the Rural District Council. The position has been aggravated by the erection, during the last twelve months, of a number of houses at Alsagers Bank. The Medical Officer of Health reports that an improved system of drainage and sewage is more urgently required here than in any other part of the district, and it is hoped that this matter will again be considered by the Council with a view to a scheme being submitted to the Ministry of Health for approval.

Madeley Parish.—As mentioned in my report for last year, a scheme has been considered by the District Council, but it was decided to await the result of representations made to the Government regarding financial assistance to such schemes in rural parishes before coming to any decision. It is hoped that the matter will not be delayed, for it is known that conditions are really bad in this district.

RIVER TRENT WATERSHED.

BIDDULPH U.D.—I have already mentioned in the report on the River Mersey Watershed that a comprehensive scheme has been prepared for this area. Part of it will drain to the Trent Watershed, and the completion of the scheme will improve greatly the conditions in the Knypersley area.

LEEK R.D.—The new works at Baddeley Green and Norton-in-the-Moors were completed at the end of the year. The condition of the river has improved in consequence.

CHEADLE R.D.—The approval of the Ministry of Health has been obtained to the scheme proposed for Cheddleton, and it is hoped work can be started in the near future.

Sewers are being laid at Armshead and Cellarhead to drain existing properties, and a new senior mixed school for 200 children which is being erected by the County Council. The sewage will be treated at the existing works at Ash Bank, Bucknall.

NEWCASTLE M.B.—The condition of the Lyme Brook, previously polluted by four Disposal Works belonging to the Newcastle Borough, remains good, as the sewage from the area served by these works now goes to the Stoke-on-Trent works at Strongford.

The Fowlea brook is still grossly polluted by trade waste and receives the effluent from the Basford Sewage Works. At the moment work is in progress on the laying of the sewers which will connect the area served by these works to the Stoke-on-Trent City works at Burslem and Strongford.

STONE R.D.—*Barlaston*.—Negotiations are still taking place between the local Council and the Stoke-on-Trent Corporation with regard to the terms on which the sewage from this area will be treated at the Strongford works. As a Ministry of Health Inquiry was held in July, 1936, and approval was subsequently given to the scheme, it is hoped that the matter will be delayed no longer, as conditions in this area are bad.

STONE U.D.—The scheme mentioned in my report for 1935, was at last presented to the Ministry and an Inquiry was held in October, 1937. After alternative suggestions made by the Ministry's Inspector had been investigated, approval of the original scheme was eventually obtained, and it is hoped that work will be started as soon as possible on this very necessary scheme.

UTTOXETER U.D.—The enlargement of the existing works was completed towards the end of the year, and considerable improvement has been noted in the effluent discharged.

BROWNHILLS U.D.—*Norton Canes*.—The commencement of the work on this scheme has been delayed, but it was actually started in the summer of 1938.

STAFFORD R.D.—*Walton and Milford*.—The Council have not yet succeeded in solving their problem with regard to a site for the sewage works to serve this area. In view of the rapid building development in this district, it is hoped that a scheme will be formulated and presented to the Ministry at an early date.

CANNOCK U.D.—A scheme was formulated during the year for the abolition of the Hazelslade works, the sewage from this area to be conveyed to the main town works by the laying of new sewers.

CANNOCK R.D.—A comprehensive scheme is in course of preparation by the Rural Council which, when completed, will serve the parishes of Cheslyn Hay, Saredon and Great Wyrley, and the existing works at Cheslyn Hay will be abolished—a source of pollution of the River Penk will then be removed.

A scheme for the extension of the sewage works at Huntington, consequent upon the building of Pit-head Baths at the Colliery, has received the approval, in principle, of the Ministry of Health.

Work on the scheme for the drainage of the Four Ashes area, mentioned in my report for 1937, is at present in progress.

RUGELEY U.D.—A Ministry of Health Inquiry was held during the year into a scheme for the sewerage of the Brereton area. It was suggested, following this Inquiry, that it would be possible to combine the proposed works with the extensions necessary at the main Rugeley works, which are at present inadequate. Meanwhile, pollution of the stream continues, and it is hoped that the negotiations concerning the two schemes will be brought to a successful conclusion at an early date.

LICHFIELD CITY.—I mentioned in my report for 1937, that representations had been made to the City Council as to the inadequacy of the present works and the consequent pollution of the Full Brook, and I understand that a scheme is now in course of preparation to deal with the problem. It is hoped that this will be presented to the Ministry during 1938, and that work will be commenced in the early part of 1939.

LICHFIELD R.D.—A scheme for the sewerage and sewage disposal at Armitage and Handsacre is still in course of preparation.

TUTBURY R.D.—The necessary work in connection with the sewerage of the Branstone, Outwoods and Stretton area, is being carried out. When completed, sewage from this area will drain to the Burton-on-Trent Corporation's works at Burton.

RIVER TAME WATERSHED.

OLDBURY M.B. (WORCS.)—The second instalment of the new sewage works was completed during the year. The additions included 6 bacteria beds, sewage pumping station and humus tanks, and it is hoped that as a result of this new works being established, the effluent discharging into the River Tame will be much improved.

BROWNHILLS U.D.—Extensions to the Clayhangar sewage works are taking place. Two new Sedimentation tanks have been provided, a new filter is being laid down, and the depth of the existing filters is being increased.

Shelfield, High Heath.—This scheme—the laying of a valley sewer to the new works at Goscote—has been completed.

Aldridge U.D.—Work on the laying of sewers to connect the Great Barr area to the Birmingham Works of the Birmingham Tame and Rea Joint Sewage Board is progressing satisfactorily.

WALSALL C.B.—*Bescot Sewage Works.*—The extension to these works is still in progress and it is hoped to complete them during the summer of 1938. The extensions include eleven new filter beds, new humus tanks, sludge digestion tanks and other incidental works. When completed, the sewage works will be capable of dealing with the estimated increase in flow for the next ten years.

Goscote Joint Sewage Works.—Although extensions have recently been made to these works, they are again overloaded owing to the extensive housing development which has taken place in the district, and a scheme for further extension is in course of preparation.

WEDNESFIELD U.D.—Much recent housing development has taken place, and as a result, the sewage works are becoming overloaded. I understand the Council are at present giving consideration to the matter.

WILLENHALL U.D.—Work on the scheme mentioned in my previous report for the sewerage of the Short Heath area is now in hand. When completed, it will enable two small works, which are a source of pollution to the River Tame, to be abolished, as the sewage from the area will drain to the main works at Willeshall.

SEDGLEY U.D.—I mentioned in my report for 1937, that the Urban District Council would be forced to consider the question of extensions at the Upper Gornal works in the near future, and the Medical Officer of Health states in his Annual Report that the matter is under consideration by the Council.

COSELEY U.D.—A Ministry of Health Inquiry was held during the year into the scheme for extension of the existing disposal works at Foxyards, and approval was subsequently obtained.

Good progress has been made with the work, which comprises the replacement of the existing inadequate screening chambers, the construction of an additional detritus tank, an additional sedimentation tank, four additional bacteria beds, one humus tank and additional sludge lagoons, and will provide for the relief of existing units at present overloaded and also for extensive housing development likely to take place in the near future.

WEDNESBURY M.B.—A new Valley Trunk Sewer has been laid, and this has meant the abolition of several Ejector Stations. Electrically operated pumps raise the sewage from the pumping station to the main works, where a new detritus tank has been installed.

LICHFIELD R.D.—*Hopwas*.—The small sewage disposal works at Hopwas are being seriously overtaxed, and the Council are considering extensions.

TAMWORTH JOINT SEWAGE BOARD.—The sewage works are being taxed to their full extent, and some time in future the Council will have to contemplate extensions.

RIVER SEVERN WATERSHED.

SEISDON R.D.—The scheme for improving and extending the existing works at Kinver is at present before the Ministry of Health. These works will serve Kinver, Stourton, Stewponey and New Wood areas.

Work on the scheme at Wombourn is making good progress, having in view the fact that a great length of sewer has to be laid.

A scheme has been submitted to the Ministry of Health for eliminating the sewage disposal works at Autherley Lane, and diverting the sewage to the Tettenhall works at Trescott. The Inquiry was held early in 1938, and I understand approval has been obtained.

WOLVERHAMPTON C.B.—A Ministry Inquiry has been held into the scheme for extensions to the Merry Hill works, made necessary by the housing development in the district.

SEDGLEY U.D.—The Council have not yet come to a decision as to the extension of the Gospel End sewage works, which is necessary in view of the housing development in the neighbourhood.

BRIERLEY HILL U.D.—A Ministry of Health Inquiry was held into this scheme—mentioned in previous Reports. Approval was obtained and it is hoped to start work at an early date.

MINISTRY OF HEALTH INQUIRIES.

The following Inquiries were held by the Ministry of Health during the year 1937 into applications for loans in respect of schemes of sewerage and sewage disposal, and water supply :—

District.	Date of Inquiry.	Amount of Loan.	Purpose.
Rugeley U.D. (Brereton) ...	...11.2.37.	£ 25,200	Sewerage and Sewage Disposal.
Stafford R.D. (Western Area) ...	9.3.37	47,000	Water Supply.
Cheadle R.D. (Blore-with-Swinscoe, Cotton, Farley, Ipstones and Water- houses) ...	... 6.4.37	10,050	do.
Willenhall U.D. ...	8.4.37	42,314	Sewerage and Sewage Disposal.
Kidsgrove U.D. ...	13.4.37	19,776	do.
Coseley U.D. ...	16.4.37	26,600	do.
Brierley Hill U.D. ...	27.5.37	25,200	do.
Cheadle R.D. (Cheddleton and Consall) ...	... 10.8.37	38,360	do.
Cheadle R.D. (Caverswall and Cheddleton) ...	10.8.37	5,879	do.
Stone U.D. ...	7.10.37	40,000	do.
Leek R.D. (Alstonefield and Wetton) ...	... 19.10.37	7,600	Water Supply.
Leed R.D. (Longnor) ...	21.10.37	2,006	do.
Stafford R.D. (Eastern Area) ...	16.11.37	17,760	do.

In addition to the foregoing the following Inquiry was held :—

Leek R.D. 19.1.37 As a result of a special representation to the Ministry of Health regarding the water supply of Hill Top, Brown Edge.

CONTRIBUTIONS TO DISTRICT COUNCILS FOR WATER AND SEWAGE DISPOSAL SCHEMES.

In the Report for 1930 the principles governing contributions from the County Council towards the cost of these schemes were set out in full. To summarise them briefly : if, after allowance has been made for the cost of a water or sewerage scheme, the rate which would have to be levied on the Parish or Urban District concerned is more than the average rate for the Rural or Urban Districts in the County as a whole, then the County Council agree to make a contribution towards the scheme, subject, in the case of a Rural District, to the District Council making a contribution towards the parish expenses of a sum at least equal to that of the County Council's grant. Details of the scheme must be submitted beforehand, and the necessity and suitability of the scheme must be approved by the County Medical Officer.

During 1937, the County Council have considered applications in respect of 8 new schemes, 7 for sewerage and sewage disposal, and one for a water supply. In each case contributions were promised, viz. :—

Sanitary District.			Scheme.
Sewerage and Sewage Disposal :—			
Aldridge U.D.	...	...	Goscote (Parishes of Pelsall and Rushall).
Brownhills U.D.	...	...	Norton Canes.
Kidsgrove U.D.	...	...	Talke Ward.
*Tettenhall U.D.	...	...	Aldersley (Parish of Wrottesley).
Cheadle R.D.	...	...	Cheddleton and Caverswall.
*Seisdon R.D.	...	...	Aldersley (Parish of Wrottesley).
Uttoxeter R.D.	...	...	Stramshall (Parish of Uttoxeter Rural).

*Joint Scheme—Tettenhall U.D.C. and Seisdon R.D.C.

Water Supply :—

Lichfield R.D. Old Wood Farm, Colton,

In addition to the above, during 1937 further consideration was given to applications affecting grants already decided upon in previous years, as follows :—

Sewerage and Sewage Disposal :—

Cheadle R.D. Cheddleton and Consall—Revised upon extension of original scheme and contribution increased.

Tutbury R.D. Henhurst Hill (Parishes of Outwoods and Branstone)—Contribution restricted to Henhurst Hill portion consequent upon the decision of the Rural District Council to allow the sewage from Branstone and Stretton to be received and treated at the Burton-on-Trent Corporation Sewage Works in lieu of providing their own scheme.

Water Supplies :—

Lichfield R.D. Clifton Campville (Extension to Clifton Mill).—Revised upon curtailment of original scheme and contribution reduced.

Uttoxeter R.D. Abbots Bromley—Revised upon cost of original scheme being less than the estimate. The Government Grant was reduced and subsequently reinstated, and the County Council's contribution was eventually maintained at the original figure.

I give below particulars of the Schemes in respect of which contributions were actually made during 1937, together with the financial years concerned :—

<i>Sanitary District.</i>	<i>Scheme.</i>	<i>Financial Year.</i>
Sewerage and Sewage Disposal :—		
Tettenhall U.D.	Tettenhall	1937-38.
Lichfield R.D.	Alrewas	1935-36.
do.	Burntwood	do.
do.	Burntwood	Second instalment
	Mental Hospital	on account of a
		lump sum contri-

Sanitary District.		Scheme.	Financial Year.
Lichfield R.D.	.....	Hammerwich	1935-36.
do.	.....	Shenstone (Little Aston and Lynn and Stonnall)	do.
Newcastle R.D.	.....	Audley	1936-1937.
Seisdon R.D.	.....	Codsall	1935-1936.
do.	.....	Lower Penn	do.
Water Supplies :—			
Cannock R.D.	.....	Penkridge	1936-1937.
Cheadle R.D.	.....	Alton (Threapwood)	1935-36 ; 1936-37,
do.	.....	Checkley (Holling- ton)	do.
do.	.....	Forsbrook (Bound- ary)	do.
do.	.....	Kingsley	do.
Lichfield R.D.	.....	Alrewas (Fradley)	1934-35 ; 1935-36,
do.	.....	Armitage	do.
do.	.....	Colton	1935-36.
do.	.....	Farewell and Chorley	do.
do.	.....	Hammerwich	do.
do.	.....	Hamstall Ridware	do.
do.	.....	King's Bromley	do.
do.	.....	Longdon	1934-35 ; 1935-36,
do.	.....	Longdon (Gentle- shaw)	1935-36.
do.	.....	Mavesyn Ridware	do.
do.	.....	Shenstone	do.
Seisdon R.D.	.....	Pattingham	1935-36.
Tutbury R.D.	.....	Hanbury	1936-37.
Utttoxeter R.D.	.....	Abbots Bromley	1936-37.
do.	.....	Blithfield	do.
do.	.....	Draycott-in-the- Clay	do.
do.	.....	Kingston	do.
do.	.....	Marchington	do.

RURAL HOUSING.

Local Authorities, having carried out their survey under the Housing Act, 1935, are now in a position to plan their schemes for the relief of overcrowding. In many instances it is realised, of course, that slum clearance must come first, but it is hoped, now that the information is available as to the extent of overcrowding in a Local Authority's area, and the problem is thus known, that steps will be taken to obviate the overcrowding that exists, even on the low standard set up in the Housing Act, 1935. Such development as has taken place in recent years has been due, mainly, to private enterprise, so that at the present time there is a great need for houses for the lower paid workers. The provision of houses for this class of people always brings forward the problem of rent, for, owing to the high price of materials and labour, housing costs have risen, so that unless some grant is made from the general rates, such rents as are charged will be too high for the people whom the houses are designed to serve.

HOUSING ACT, 1936.

This Act came into force on the 1st January, 1937. Generally, it consolidates the law about housing and in it most of the sections of previous Housing Acts are repeated.

With regard to Rural Housing, Local Authorities can apply to the County Council for a grant of £1 per annum per house for forty years for those houses erected by them for the agricultural population. Lichfield Rural District Council made such an application during the year, following a decision to erect 14 houses at King's Bromley, 6 of which will be allocated to the agricultural population.

HOUSING (RURAL WORKERS) ACTS.

Under these Acts contributions are given by the County Council for the re-conditioning of old houses in rural areas, and for the conversion into dwellings of buildings not previously used for that purpose. Applications for grants must come from the owner of the property concerned. During the year, 29 applications were received, two being refused, one withdrawn and one deferred. In the remaining 25 instances grants were either made or promised, as follows :—

Rural District.	Parish.	No. of Houses.	Amount of Grant.
			£
Cannock	Bednall	1	100
	Blymhill	1	100
	Brewood	1	100
	do.	1	70
	Lapley	1	100
Lichfield	Clifton Campville	9	700
	Drayton Bassett	1	100
	Longdon	2	160
	do.	1	100
	do.	2	175
Newcastle	Betley	1	100
	do.	1	100
	Tyrley	1	100
	do.	1	100
Stafford	Adbaston	2	135
	do.	1	100
	Baswich	1	100
	Bradley	2	200
	Church Eaton	3	300
	Haughton	1	100
	Ranton	2	200
Stone	Eccleshall	1	100
	Swynnerton	1	85
	do.	1	70
	do.	2	170

INSPECTION AND SUPERVISION OF FOOD. MILK SUPPLY.

MILK SAMPLING.

During the year, the Milk Sampling Officers of the County Council obtained the under-mentioned samples of milk, in course of retail to the public, for examination in the County Bacteriological Laboratory :—

Ordinary Milk 675

Specially Designated Milks :—

“Tuberculin Tested” 41

“Tuberculin Tested Pasteurised” ... 4

“Accredited” 63

Pasteurised 62

In addition, 3 samples of sterilized milk were submitted for test.

(1) **CLEANLINESS.**

Ordinary Milk.—Of the 675 samples mentioned above, 652 were bacteriologically examined, and 403 were found to conform to a certain standard of cleanliness, the remaining 249 failing to do so. Two-hundred-and-twenty-nine of the latter were produced within the County and 20 outside. The percentage of samples reported clean was 61.8.

Action regarding the unsatisfactory samples was taken by the Veterinary Department, and, as in previous years, the names of the producers were reported to the County Farm Institute, the Assistant Director for Agricultural Education communicating with the farmers concerned to offer every assistance. In accordance with the usual practice, if no improvement in the cleanliness of the milk resulted, the District Council in whose area the premises are situated was communicated with so that the necessary steps could be taken under the Milk and Dairies Order, 1926.

Specially Designated Milks.—The cleanliness test was applied to the 170 samples submitted, and 21, or 12.4 per cent., were found to be unsatisfactory, viz. :—7 “Tuberculin Tested,” 8 “Accredited” and 6 Pasteurised. The 3 samples of sterilized milk were satisfactory.

As regards the unsatisfactory samples other than those of Pasteurised milk, 9 were produced in the County and 6 outside. The sources of production of the 6 Pasteurised samples were not known, but one was treated at premises within the County.

Apart from the prescribed standard of cleanliness for Pasteurised milk, there is the question of proper pasteurisation, and a test has been devised, known as the Phosphatase Test, experience of which shows that a positive result, i.e., the demonstration of the presence of phosphatase in the milk, is conclusive evidence that the milk has not been properly pasteurised, or that milk which has not been pasteurised has been added to it. A positive result therefore enables Local Authorities to deal with cases in which it is suspected that raw milk is being sold as Pasteurised, and also facilitates the detection of defects in the pasteurising apparatus, or in its working. During 1937, this test was applied to 66 samples obtained by the Sampling Officers, and there were 7 positive results.

(2) TUBERCULOSIS.

Of the 675 samples of ordinary milk and the 170 of specially designated milks, 604 and 154, respectively, were examined biologically. Thirty-six samples of ordinary milk and 5 of "Accredited" milk were found to contain tubercle bacilli.

All samples in which tubercle bacilli were found during 1937 were referred to the Veterinary Department, and are included in the figures appearing in the following section of the Report.

VETERINARY DEPARTMENT.

As in previous years, the report of the work of the Veterinary Department, which includes all duties under the Milk and Dairies Acts and Orders, the Tuberculosis Order, 1925, and the Milk in Schools Scheme, has been prepared by Mr. F. A. Davidson, the Chief Veterinary Officer, and reads as follows :—

The year under review shows further steady progress towards the objective in view when the Veterinary Department was formed, the most noteworthy feature being the fall in the percentage of positive biological results from samples taken from individual producer retailers within the County. This was anticipated in the first Annual Report, which was submitted in 1935, but not expected to occur sooner than the end of 1938. There have been smaller, but steady, increases in the number of "Accredited" and "Tuberculin Tested" producers. Fortunately, after the "Foot and Mouth Disease Infected Areas" which existed at the end of last year, had been released from restrictions, there was only a slight interference with routine herd inspections. This, together with the completion of the preliminary organisation of the "Accredited" Herd Scheme, allowed more time for milch cow examinations, which have been increased by over 30,000.

STAFF AND VETERINARY DISTRICTS.

The number of staff remained the same as at the end of 1936, viz., eight Assistant Veterinary Officers, two Sampling Officers, and four clerks. Consideration was given to the appointment of an additional Sampling Officer, but, owing to the anticipated transfer of administration, this was deferred. There was one change in the staff during the year, following the appointment of an Assistant Veterinary Officer to another County.

TABLE I.
REGISTER OF DAIRY PREMISES.

	No. of herds.	Total No. of cows.	Av. No. of cows per herd.	No. of calving heifers (approx.)	Nos. of Other Bovines.	
					Dairy Stock (approx)	Feeding Stock (approx)
MUNICIPAL BOROUGHES :						
Bilston	3	44	14.7	1	3	10
Newcastle	51	885	17.4	61	241	5
Rowley Regis	17	158	9.3	—	10	—
Stafford	27	670	24.8	38	209	20
Tamworth	10	117	11.7	13	107	—
Wednesbury	1	4	4.0	—	—	—
URBAN DISTRICTS :						
Aldridge	32	408	12.8	40	168	53
Amblecote	3	37	12.3	1	23	—
Biddulph	193	1,781	9.2	138	672	5
Brierley Hill	24	227	9.5	8	43	—
Brownhills	34	232	6.8	27	151	2
Cannock	27	319	11.8	11	112	—
Coseley	13	128	9.8	12	35	—
Darlaston	7	50	7.1	3	18	—
Kids Grove	54	612	11.3	33	209	22
Leek	40	790	19.8	66	206	—
Lichfield	13	161	12.4	45	87	13
Rugeley	23	319	13.9	51	241	12
Sedgley	24	353	14.7	40	96	6
Stone	9	276	30.7	35	128	8
Tettenhall	16	267	16.7	10	75	—
Tipton	3	24	8.0	—	—	—
Uttoxeter	41	780	19.0	71	261	—
Wednesfield	19	175	9.2	12	39	13
Willenhall	8	69	8.6	12	30	3
RURAL DISTRICTS :						
Cannock	301	6,360	21.1	1,100	3,066	570
Cheadle	871	13,094	15.0	1,285	5,330	195
Leek	982	12,731	13.0	1,765	6,634	65
Lichfield	441	8,812	20.0	1,402	5,953	793
Newcastle	353	7,654	21.7	866	3,046	85
Seisdon	143	2,577	18.0	324	1,294	85
Stafford	592	13,728	23.2	1,753	7,574	751
Stone	538	11,217	20.8	1,167	5,423	831
Tutbury	238	5,483	23.0	721	2,571	131
Uttoxeter	639	12,912	20.2	1,854	5,422	96
Totals	5,790	103,454	17.9	12,965	49,477	3,774
Small producers retailing at door etc. (no milk sold wholesale) approx.	200	600				
Grand Totals	5,990	104,054				

The preceding table has not been altered since last year, as usually the information is not assembled until the majority of changes of occupiers have been notified after the end of March. There is probably little difference in the total numbers of herds and cows, as new additions to the register, and a slight increase in the average cows per herd, is offset by the reversion, towards the end of the year, of certain producers to feeding, following the increase in fat stock prices, subsidies etc. The reports and general observations show, however, that there has been a welcome increase in the number of dairy stock being reared within the County.

ROUTINE INSPECTIONS.
The following table refers to routine inspections only:—
TABLE IIA.

Cows examined.				ADJUSTED FIGURES.					
				Av. No. of cows per herd.	Herds exam'd	Cows exam'd.	TUBERCULOUS ANIMALS (except under "Not affected" Column).		
							Slaught'd under T.B. Order by Staffs. C.C.	No. of udders affected.	Reported to separate Authorities for T.B. Order.
Herds examined.	In-milk	Dry.	Total.				Not advanced T.B.	Not affected.	Sold for slaughter by owner, or cow died before positive sample report.
	163,122	32,522	195,644				392	585	
10,123				19.33	10,006	194,274	377	2	12

The "Adjusted Figures" section in Table II. A. is the record of the completed inspections.

For statistical purposes a herd inspection is only considered complete when, in addition to the routine clinical examinations, all further work that may be entailed, such as bacteriological, biological and post-mortem examinations, is finished.

The figures given in the Table in respect of cows slaughtered under the Tuberculosis Order, 1925, refer only to animals reported by the County Veterinary Officers at the time of routine herd inspections, the total figures of all animals slaughtered being given later in the report.

Animals reported to other Local Authorities were those discovered at routine inspections in the Municipal Boroughs of Newcastle, Stafford and Wednesbury, which are separate Authorities under the Diseases of Animals Acts.

As stated previously, the number of routine herd inspections has been increased, the total figures for 1937 being 10,123 herds and 195,644 cows, compared with 8,608 and 165,461, respectively, during last year.

The bi-annual inspection of all herds in the County was completed within a few weeks of the end of the year, and, provided there was reasonable freedom from Foot-and-Mouth Disease restrictions, I anticipated that the arranged scheme could be carried out during 1938, as the majority of the reports on premises and the main advisory work under the "Accredited Herd Scheme" has been accomplished.

Tables V A. and V.C. indicate a rise in the percentage of "Not Advanced" cases of tuberculosis slaughtered, and a fall in the number of "emaciation" reports, which, together with the decrease in positive biological results from "street" samples, show that the work of the Department is achieving results.

As anticipated in the report for last year, the system of grouping bulk samples was extended to cover approximately 2,000 producer-retailers, and it was intended, with further extensions to the animal house, to cover all herd examinations during 1938.

Group Bulk sampling is the most practical means of searching out the pre-clinical cases of Tuberculous Mastitis, and briefly, the method is to take, immediately after examination, a group sample, including the milk from every milking cow which has not been sampled individually, or dealt with under the Tuberculosis Order, 1925. These samples are centrifuged separately, the

sediment from the bulks of two or more herds, according to the size and situation, being mixed and injected into one guinea-pig.

This method was extended during 1937 as far as accommodation in the animal house allowed, and it was intended to enlarge the latter and cover all herds examined during 1938.

Tables IIB and IIC which follow, show the results of the examinations completed at 31st December, 1937, and prove the value of the scheme.

TABLE II.B.

		COWS SLAUGHTERED AS A RESULT OF :—				POST-MORTEM EXAMINATIONS.							GROUP BULK SAMPLES		
Inspections	Herds Exam'd.	Cows Exam'd.	Clini- cal Exam.	Micro-Exam.		Biol- ogical exam. of milk	T.B. udder	T.B. emac- iation.	T.B. with chronic cough.	Advan- ced. 'T.B.	Not advan'd T.B.	Not affected	Total No. taken.	Positive.	
				Milk.	Sputa									No.	Herds
FIRST	977	13,187	42	6	7	18	32‡	5	32	23	46	1	280	31	118
SECOND	103	1,605	12	3	2	11	23*	.....	3	17	9	.....	.....	.....	.....

† Three fat cows slaughtered by owners not included.

* Two "

TABLE II.C.

COWS SLAUGHTERED										Percentage of T.B. Udders not discovered at First Inspection:	
FIRST INSPECTION					SECOND INSPECTION						
Cows Examined	Total	T.B. Udders.		Percentage of total cows examined	Total.	Percentage of total Cows examined	T.B. Udders.		Percentage slaught- ered of Total Cows examined		
		Percentage of total cows examined	Total.				Percentage of total Cows examined	Total.			
										0.55	35	0.27	28	0.21	25	0.19	0.76	0.45
13,187	72	0.55	35	0.27	28	0.21	25	0.19	0.76										0.45	41.7

MILK AND DAIRIES (CONSOLIDATION) ACT, 1915. SECTION 4.

Section 4 of this Act provides that if a sample of milk offered for sale within the County area, whether or not produced therein, is found to contain tubercle bacilli, notice must be given to the County Medical Officer of Health, whose duty it is to cause the cattle in the dairy concerned to be inspected, and to make such other investigations as may be necessary.

On receiving the positive result of a sample produced within the County, the Chief Veterinary Officer arranges for a veterinary examination of the suspected herd. After the removal of any clinical cases of tuberculosis, single or group samples of milk are taken from the remainder of the herd, thus ensuring that the source of the contamination is removed.

In the case of milk produced outside, but sold in the County area, which is found to contain tubercle bacilli, a representation under this Section of the Act is made to the Medical Officer of Health of the outside Authority concerned, who then takes the necessary action as regards the herd. Similarly, we receive representations from outside Authorities in respect of milk produced in Staffordshire.

Two-hundred-and-thirteen complaints of the presence of tubercle bacilli in milk produced in Staffordshire were received during the year, as compared with two-hundred-and-thirty-seven during 1936.

The sources of the complaints were as follows :—

Staffs. C.C.—Samples taken by Official Sampling Officers	53
Staffs. C.C.—Samples taken by Veterinary Staff	..... 12
Samples taken by Sanitary Inspectors within the County	3
Samples taken in areas outside the County and reported to Staffs. under Section 4—Milk and Dairies (Consolidation) Act, 1915	... .. 145
Total	..... 213

The fifty-three samples mentioned above, taken by the Official Sampling Officers during 1937, were found to contain tubercle bacilli, and investigations under Section 4 of the Milk and Dairies (Consolidation) Act, 1915, were carried out at fifty farms. These were consequent on forty-five complaints, in two instances the samples containing milk from two and five farms respectively. As regards the remaining eight complaints, the infection at the farms had been dealt with before the positive reports were received.

Eight samples taken by the Official Sampling Officers and Veterinary Officers, which were produced in areas outside Staffordshire but sent into the County for sale, were found to contain tubercle bacilli, and representations under Section 4 of the Act were made to the appropriate Authorities. These cases were investigated, in three instances with negative results. In the other five instances tuberculosis was found and seven animals were slaughtered, five being in an "advanced" state and one was "not advanced." Information was not supplied as to the state of the disease in the remaining animal.

The following Table gives details of the investigations carried out by the Veterinary Staff of the County and refers only to inspections under Section 4 of the Milk and Dairies (Consolidation) Act, 1915 :—

TABLE III.A

ADJUSTED FIGURES.												
Herds exam- ined.	Cows examined.			Av. No. of cows per herd.	Herds exam- ined.	Cows exam'd.	TUBERCULOUS ANIMALS (except unde. "Not affected" Column).					
	In-milk	Dry.	Total.				Slaught'd under T.B. Order by Staffs C.C.			No. of udders affec- ted	Reported to sep- arate Author- ities for T.B. Order.	Sold for slaughter by owner, or cow died be- fore posi- tive sam- ple report
							Adva- nced T.B.	Not adva- nced T.B.	Not affect- ed			
214	5,407	906	6,313	29.5	215	6,180	65	114	.....	161	3	5

As in the case of routine inspections, the "Adjusted Figures" section in the foregoing Table is the record of completed inspections.

Table III.B. below shows that in sixty-two "Section 4" investigations, no cows were slaughtered following the receipt of the notifications. Control bulk samples from these herds were all negative, but it will be observed that, except in fifteen herds, a possible source of infection was traced.

TABLE III B.
"SECTION 4" REPORTS, 1937.

No. of herds where no cows slaughtered.	NUMBER OF CASES WHERE :—						
	No satisfactory explanation obtained	History of doubtful cows sold.	History of milk purchased.	Cow(s) already slaughtered as a result of routine inspection.	Cow Bio + but sold or died before result.	Cow found at another farm (mixed milk).	History of milk mixed in transit
62	15	18	9	13	6	—	1

Five reports of the presence of tubercle bacilli were also received in respect of bulked milks from two or more farms. The number of herds contributing to these mixed supplies varied from 2 to 56 in each report, the total for the five reports being 71. It is obvious that such notifications can only be effectively dealt with by Local Authorities with an organised system of herd inspection supported by adequate Laboratory facilities, as is provided in Staffordshire. The Official Sampling Officers in this County make detailed enquiries, when sampling in the street, at depots, etc., as to all milk purchased that day, and in two cases the offending cows were found at farms other than those at which the milk was supposed to have been produced.

DISEASES OF DAIRY HERDS.

The general condition of the herds was improved compared with the last few years. This was probably due to better grazing and a well-secured hay crop. There has been a tendency in many cases, however, towards a fall in condition during the winter months, caused perhaps by the droughts and bad hay crops of previous years, and the rise in the cost of concentrated foods. Many owners consider the latter is not in proportion to any increase in the wholesale price of milk, and the consequent reduction in feeding, together with the lack of condition reported

last winter, has lowered the quantities of milk produced since the middle of the summer. The exceptional rise in the value of dairy cows during the past year has, I think, reached an uneconomic limit in view of present milk prices, though towards the end of the year an improvement in the price of cast and fat cows eased the situation. There is a marked scarcity of good-class dairy store cattle, and I am pleased to report that the extension of intensive milk production at the expense of rearing of young stock has been checked in this county. This Department has at all times stressed the disastrous results likely to accrue from this policy of reducing breeding and our efforts now appear to be bearing fruit, with some hope for the future formation of self-contained "Tuberculin Tested" herds.

Mastitis has again been the greatest menace to dairy farmers, and one result of the Accredited Herd Scheme has been the iniquitous practice of "bagging-up" cows with the least suspicion of induration and passing them through the markets. Purchasers of dairy cows do not give sufficient attention to the milking out and examination of udders immediately on purchase, and once the animals are removed from the sale yard there is very little redress. It is impossible, of course, to carry out more than a cursory examination of cows newly calved, or just at calving, owing to the normal tenseness of the udder, and I am surprised that as in some districts, a demand is not created for cattle 2 to 4 weeks off calving, when the possibility of examining the udder and teats more than compensates for a few weeks' maintenance and any calving risks. This would also reduce the tremendous damage to the milking qualities of cows caused by "overstocking," which is often repeated two or three times in the same animal in the course of one week. From this aspect also, all purchasers of calved cows should have them milked out completely immediately after purchase. Incomplete milking is undoubtedly a predisposing factor in the origin of mastitis.

The position as regards the increased use of milking machines and the spread of mastitis, mentioned in the 1936 Report, becomes more extensive each year, and I repeat the advice given previously. I would point out that this is entirely due to the negligent handling of plants, as producers who use them carefully have no greater incidence of udder trouble in their herds than exists in those with average hand milking. The fore milk should be drawn from every animal before application of the teat cups, and a careful examination made for the slightest curdling of the milk. Where the latter is found, the cow concerned should be milked after the healthy animals have been dealt with, and all quarters milked by hand with the necessary hygienic precautions. All parts of the milking machine should be sterilised by boiling water or steam

after each milking, and it is advisable to swill the teat cups after removal from each cow, in a clean, weak, antiseptic solution which will not taint the milk. Although so far there is no specific cure for mastitis, prompt treatment immediately the first symptoms are observed will lead to a considerable reduction in loss, and owners should consult their private veterinary surgeons at once to decide which particular form of treatment is likely to be the most successful.

A certain amount of experimental work was commenced in one or two herds in an attempt to eradicate mastitis by means of field methods, checked by the submission of samples to the County Laboratory for cultural examination. Results were encouraging, and it was intended next year to extend the work for a few months previous to formulating a scheme in conjunction with producers, the County Laboratory and Veterinary Practitioners.

There is very little change to report with regard to Bovine Contagious Abortion, and although there are still fresh outbreaks in herds which were previously free, I think the extension of the disease noted in previous years has not been so serious. During the next 12 to 18 months I had anticipated forming a record of the disease in individual herds, based on the reports of the County Laboratory and Veterinary Officers during the past three years. Some time ago, Dr. Menton, the County Bacteriologist, arranged to carry out agglutination tests on the sera of all guinea-pigs used for the biological test for tuberculosis. The reports I have received give valuable information, and prove how widespread the disease is throughout the County. There is no great effort so far to eradicate the disease by means of the blood test, and live vaccines are used extensively. Producers rearing or purchasing heifers calving their first calves at full time should bear in mind that they are likely to abort the second calf when added to infected herds.

Several cases of undulant fever have been reported, and the usual clinical, bacteriological and biological investigations of the suspected milk supplies have been carried out. In the majority of cases, where there was fairly conclusive evidence against a particular cow, the owner has disposed of her for slaughter, there being no justification for taking any legal action. In one investigation where, out of a herd of 60 cows, two cows were considered as possible sources of infection, a series of samples of milk and blood were taken from both animals. The results of agglutination tests on whey, blood and guinea-pig sera, were conflicting, but I think that any conclusions in these investigations should be based on the sera from guinea-pigs inoculated with milk from individual cows.

Obvious clinical cases of Johnè's disease were fewer during the past year, as water supplies are being gradually improved, and pools, ditches and streams, held a bigger volume of water than during the previous years of drought. The disease, however, still remains one of the major economic problems of the dairy farmer in this County. I would reiterate the advice that the fullest support should be given to water supply schemes, which should be planned to include as many agricultural holdings as possible. If all the cattle in the County were watered by water bowls and protected troughs, and the drainage from cowsheds etc., was improved, 70 to 80 per cent. of the Johnè's disease would disappear within two years and show a probable saving of £50,000 per annum.

Sterility and mineral deficiencies still cause very serious losses, and warrant much more consideration than they have received so far. From our own observations and reports of practitioners, the effect of mineral deficiencies again became more evident as the winter, with its unnatural conditions and feeding, progressed. Producers should realise that immediate improvements can be effected by rationing with minerals, meat and bone meal, whey products etc., and a permanent cure gradually effected by improvements of pastures and crops through controlled application of manures.

There is a welcome revival in the rearing of young stock, but producers should appreciate that the seeds of many ailments common to adult stock are sown in the early years of life. It is an anomaly that there are no rules or regulations controlling the structure and cleanliness of premises, utensils etc., during those critical years of early bovine life. All calves should be reared in clean, well lighted, easily disinfected, open boxes, with, if possible, concrete or other hard surfaced paddocks. The times of the day and season during which grazing is permitted should be controlled, mainly to check parasites, and the continual or repeated use of the same field for calves avoided. All buckets etc., used for feeding should be cleansed and sterilised daily with the same care as that given to the dairy utensils. Feeding, and a proper allowance of minerals, meat and bone meal, etc., should be carefully worked out month by month. The Milk Marketing Board will achieve marked success when they organise their scheme in such a way that much of the milk now sold at manufacturing prices, or surplus skim milk, is retained for the feeding of young stock, beyond the ages at which it is now stopped. Rearers should, of course, see that only the milk from healthy cows is used for feeding, as tuberculous udders of to-day would be the origin, through infected milk, of the majority of the tuberculous udders of 3 to 5 years hence. All young stock should be kept separate from adult cattle at all times.

MILK (SPECIAL DESIGNATIONS) ORDER, 1936.

1. Grades of specially designated milk are :—

- (a) "Tuberculin Tested,"
- (b) "Accredited,"
- (c) Pasteurised,

with additional permissible qualifications as regards "Tuberculin Tested" Milk (Pasteurised) and "Tuberculin Tested" milk bottled on the farm ("Certified.")

2. On and after 1st January, 1937, the examination of "Tuberculin Tested" and "Accredited" milks for cleanliness was carried out by the Methylene Blue Reduction Test, instead of by Bacterial Count and the presence of coliform organisms, the latter now being optional. Both grades of Pasteurised milk are examined by the Bacterial Count method.

3. It is permissible for "Accredited" producers to tuberculin test their herds without disposing of the reactors, but known reactors must not be added to the herd.

4. As from the 1st June, 1936, the issue and control of all new licences for the production of "Tuberculin Tested" milk became the responsibility of the County and County Borough Councils, the Ministry of Health retaining control of herds licensed previous to that date until 31st December, 1936.

"ACCREDITED."

On the 31st December, 1936, there were 2,454 farmers licensed to produce "Accredited" milk, and this number had increased to 2,602 by 31st December, 1937. It will be observed that the increase in numbers is comparatively small. During the year, 10,366 samples of milk were taken for examination for cleanliness, and 7,085, or 68.3 per cent., complied with the required standard.

Each producer has his milk sampled and examined quarterly, and if the result is unsatisfactory, a report and notes on clean milk production are sent. As soon as possible afterwards, a Veterinary Officer visits at milking time, gives advice on any faults he finds, and takes samples at various stages of production in order to check sterilisation of the utensils. This latter point is important, as it is impossible to judge defects accurately by any ordinary examination, which is the weak point of assessment by score cards.

“Divided” advisory samples were examined for Bacterial Count and the presence of Coliform Bacilli, and by the Methylene Blue Reduction Test. The analysis of these results is given in Table IV, and confirms the conclusions arrived at in last year’s Report—(Page 99).

Summary of Results on Examination of "Divided" Samples, 1937.

These were taken after a "quarterly Accredited" sample was reported as having failed to pass the Reductase Test.

Samples taken from	No. of samples taken.	Bacterial count.					* Methylene Blue Reduction Test		Bacterial count.			% passed Methylene Blue Reduction test
		Under 10,000.	10,000 to 30,000.	30,000 to 100,000.	100,000 to 200,000.	Over 200,000.	Passed.	Failed.	% under 30,000.	% over 100,000.	% over 200,000.	
Buckets (uncooled)	745	260	131	98	59	197	566	168	52.48	34.36	26.44	77.11
Above cooler (uncooled)	186	38	31	24	16	77	99	82	37.10	50.00	41.40	54.70
Below cooler	759	152	121	125	72	289	512	233	35.97	47.56	38.08	68.72
Churns	940	136	127	150	83	444	589	335	27.98	56.06	47.23	63.74

* Certain samples were not submitted to this test.

Coliform Organisms.

Samples taken from	No. of samples taken.	Absent from 1 c.c.	Present in 1 c.c.	Present in 1-100th c.c. (1 tube).	Present in 1-100th c.c. (2 or 3 tubes).	% Coli absent from 1 c.c.	% Coli present in 1-100th c.c. (2 or 3 tubes).
Buckets (uncooled)	745	538	1	41	165	72.21	22.15
Above cooler (uncooled)	186	110	—	11	65	59.14	34.95
Below cooler	759	429	2	52	276	56.52	38.36
Churn	940	465	3	67	405	43.47	43.09

The Veterinary Staff again carried out all duties in connection with buildings and premises licensed to produce "Tuberculin Tested" and "Accredited" milk. Approximately three to four hundred fresh reports were made, and my own observations and the reports of the Assistant Veterinary Officers show that, compared with the total for the last ten years, there has been more extensive reconstruction of dairy premises in Staffordshire during 1937.

The demand for the Veterinary Department's "Notes on the Reconstruction of Dairy Premises" has exceeded 1,000 copies during the past two years, and there has been a large increase in requests from Sanitary Inspectors, Architects, Builders and owners, for reports on plans, or assistance in their preparation. In order to co-operate with and assist officials of District Councils, we advise them of defects observed at the time of herd inspections in non-licensed premises, and, except in one or two areas, there have been extensive improvements during the past few years.

During the past year, frequent meetings of the Food and Drugs Sub-Committee were held to consider unsatisfactory reports on premises licensed for the production of "Accredited" milk. The main conditions of the licence not complied with were failure :—(a) to have the herd examined as and when required ; (b) to mark the cows and keep a register of the herd ; (c) of repeated samples of milk to pass the required tests and (d) to comply with satisfactory conditions in connection with the cleanliness of cows and premises. As a result of these unsatisfactory reports, the licences of ninety-seven producers were suspended for one month, four for two months, two for three months, and one was revoked. Sixteen other producers were cautioned.

The majority of the suspensions followed repeated unsatisfactory sample results after advice had been given and "divided" samples taken. In practically every case where the producer availed himself of the opportunity to appear before the Sub-Committee, cross-examination revealed defects in methods of cleansing and sterilising the dairy utensils, although several of the farmers had low pressure steam sterilisers. One of the common sources of unsatisfactory results was churns, which producers should always sterilise together with their other utensils, and any advice to the contrary should be ignored.

"TUBERCULIN TESTED."

The number of producers licensed for the production of "Tuberculin Tested" milk at 31st December, 1937, was 28, an increase of 5 during the year. The latter were mostly owners

who, during the past three years, had followed the advice of this Department by breeding or purchasing young stock, and gradually eliminating the original herd. Where our plan had been closely followed, the fall in the percentage of reactors was striking and permanent. On the other hand, the herds mentioned in last year's Report as being on an unsound basis, or those in which there had been carelessness in purchase, isolation or feeding, gave the anticipated unsatisfactory results.

In the Annual Report for 1935, I pointed out that I did not anticipate any marked fall in the incidence of tuberculosis, or in the presence of tubercle bacilli in milk, until approximately three years after the commencement of Routine Herd Inspections. I considered, therefore, that in a County such as Stafford, much time and expense would be saved if no scheme of tuberculin testing were commenced until then, statistics with regard to the maintenance of herds being collected in the meantime. Table I gives the results of the latter according to Sanitary Districts. The figures for certain parishes in several of these areas, especially in the north-east, show that the possibility of developing tubercle free herds in Staffordshire is not so remote as might be thought. A scheme for the tuberculin testing of herds, both milking and breeding, was accordingly submitted to the Committee for approval. The minimum basis was that herds approved should be self-supporting, or could be made so in a short time. To assure this, the number of young stock must be equivalent to, or greater than, the number of milking and dry cows. It was hoped that the scheme would commence towards the end of the grazing season of 1937, but with the announcement of the Centralised Veterinary Scheme it was not proceeded with.

It has been realised for some time that Contagious Bovine Abortion would interfere with the success of any scheme for the eradication of tuberculosis. This was made very evident by the result of the survey carried out by Dr. Menton, the County Bacteriologist, which has already been mentioned. The results were not only interesting and helpful to this Department, but often startling, and in another year the arrangements for the collection of samples would have given an almost complete picture of B. Abortus infection in the County. Already it is shown that in Staffordshire this disease is the most serious menace to the eradication of tuberculosis, as was pointed out in last year's Report.

One of the weakest points in the control of tuberculin tested herds is the requirements in connection with the marking of cattle. I do not mean as regards the individual numbers of the animals, but it should be necessary for a special restricted tattoo

to be applied to animals which pass an official test, which would be cancelled by tattoo if they subsequently reacted. There is the risk, of course, that non-reacting animals sold from a licensed herd will subsequently change hands repeatedly, and be exposed to infection. The special tattoo might then be used as a form of certificate and guarantee, but this, I consider, would be a lesser evil than many existing at present.

The arrangements for the admission of animals from tuberculin tested herds to Cattle Shows were also very unsatisfactory, as was found to be the case in Staffordshire after the control of such herds had been transferred to the County Council. Recommendations on this question were made to the Ministry of Health and were subsequently adopted, a circular being issued giving particulars of present requirements.

Producers considering the formation of tuberculin tested herds should study the advice given in the Annual Reports for 1935 and 1936.

MILK IN SCHOOLS SCHEME.

The supply of milk to schools under the Milk Marketing Board's Scheme has again been supervised by the Veterinary Department. At the end of the year there were 123 suppliers of "Accredited," Pasteurised and ungraded milks, to 364 schools, as detailed in the following table :—

Type of milk.	No. of Suppliers.	Schools or Depts. supplied.	Children supplied.
"Tuberculin Tested"	1	1	46
"Accredited"	76	142	10,014
Pasteurised	20	181	17,065
Undesignated	26	40	2,528
	123	364	29,653

The procedure adopted during previous years was extended to allow for :—

(a) *Raw Milk.* Examination of the producing herd with sampling, either individually or by bulks, of the milk of every animal for biological examination. Six to eight weeks later, on receipt of the results, a sample was taken at the school after delivery and submitted to both bacteriological and biological examination.

(b) *Pasteurised Milk.* Two samples were taken each term at 7 to 9 week intervals, after delivery to the school : these were submitted to bacteriological, biological and phosphatase tests.

The Veterinary Department collected at schools during the year 388 samples of milk, and of these 119 samples examined bacteriologically failed to reach the required standards.

As regards unsatisfactory samples, the suppliers and, in the case of "raw" milk, the producers, are notified, advice given by letter, or a visit made by the Assistant Veterinary Officers and repeat samples taken.

Sixty-two Pasteurised supplies were submitted to the phosphatase test ; 58 passed and 4 failed.

As a result of the clinical examination of the herds, 27 cows as possible sources of infection, were dealt with under the Tuberculosis Order, 1925, for various forms of tuberculosis.

There is still great difficulty in obtaining supplies for schools in rural areas, producers stating that owing to the restricted demand, 6d. per gallon is not sufficient to meet the extra cost of bottles, straws, labour etc.

A scheme similar to that for schools has been in operation in the County since 1934 in connection with the supervision of supplies to two Children's Hospitals. This was extended towards the end of the year to include all Sanatoria, Public Institutions and one Infirmary. Twenty-five samples were taken and examined bacteriologically and biologically, 8 failing to pass the required standard for cleanliness.

TUBERCULOSIS ORDER, 1925.

This Order, though made under the Diseases of Animals Acts, is so closely associated with the inspection of herds that it must form an appendix to any report under the Milk and Dairies Acts.

The following is a summary of the cases dealt with during 1937 :—

TABLE V. A.

Number of premises on which disease was reported but not confirmed		151
Number of premises on which disease was declared to exist		1,690
	<i>At Preliminary Inquiry.</i>	<i>At Post-mortem examination.</i>
Number of animals having tuberculosis of the udder	576	741
Number of animals giving tuberculous milk	5	4
Number of animals suffering from tuberculous emaciation	133	133
Number of animals suffering from chronic cough and showing definite clinical signs of tuberculosis, and at post-mortem examination found to be affected, but not as in the above three classes	1,115	947
	<hr/> 1,829	<hr/> 1,825
Number of animals found on post-mortem examination to be not affected		3
		<hr/> 1,828*

* One cow had died before being moved to slaughterhouse.

RESULTS OF POST-MORTEM EXAMINATIONS :—

Number of animals certified as suffering from ADVANCED TUBERCULOSIS	882
Number of animals certified as suffering from TUBERCULOSIS NOT ADVANCED	943
Number of animals found to be NOT AFFECTED	3
	<hr/> 1,828
Number of animals for which compensation was paid	1,828
Total compensation paid	£10,639 6s. 9d.
Total salvage received	£3,281 13s. 1d.

TABLE V. B.
CASES REPORTED BY OWNERS, ETC.

Total No. of reports.	No. not dealt with under Order.	No. slaughtered	Advanced T.B.	Not Advanced T. B.	No. Not affected.
1,108	199	909	499	407	3

TABLE V. C.
EXTRACT FROM RETURNS UNDER TUBERCULOSIS ORDER, 1925

	1933	1936.		1937.	
		Routine and "Section 4."	Reported by Owners, etc.	Routine and "Section 4,"	Reported by Owners, etc.
T.B. udder	273	595	395	538	203
T.B. emaciation	818		199		133
T.B. with cough	231		961		947
Advanced	71 %	48.4 %	62.9 %	39.5 %	54.8 %
Not advanced	29 %	51.6 %	37.1 %	60.5 %	45.2 %

Compared with the previous year, there has been a decrease of 234 animals slaughtered under the Order, and although tuberculous udders are 155 fewer, the largest comparative drop is in cases of "emaciation," viz., 133 compared with 199 in 1936. This, combined with the fall in positive bulk samples, indicates that the infection in herds has been reduced from the Public Health aspect, and especially in young stock not reared in contact with adult stock. Pulmonary cases are practically stationary, but it is anticipated that with more detailed inspections and collection of sputa, the number would be increased. Previous experience has shown, however, that clinical examination of herds has very little effect on the incidence of this form of tuberculosis, where cattle are housed together for varying periods, especially in badly constructed sheds. The evidence collected since 1934 shows that many of the self-contained herds in the County would give a very high percentage of reactors to the Tuberculin Test, but this should not deter owners of such herds from following the advice given in previous reports, as with a sufficient supply of healthy young stock, even heavily infected herds can be cleared in three to five years.

Table V.C. shows that owners are reporting suspected cases earlier, the percentage of "not advanced" cases from these reports being 45.2 compared with 37.1 in 1936 and 29 in 1933.

The average compensation for the animals slaughtered has increased to £5 16s. 5d. compared with £5 4s. 3d. for 1936, which is accounted for by the increase in the price of dairy cattle, and the higher percentage of "not advanced" cases. The average salvage realised has increased from £1 13s. 8d. in 1936, to £1 15s. 11d., leaving a surplus towards administrative expenses after payment of the County Council's proportion of the compensation.

CHEMICAL EXAMINATION OF FOOD AND DRUGS.

Samples analysed under the Food and Drugs Acts are shown in the report of the County Analyst, already referred to, from which it will be observed that 2,654 samples were submitted, 2,412 of which were found to be genuine and 242 adulterated or below standard.

(1) MILK. During the year, 1,939 samples of ordinary milk were chemically examined and 195 were found to be unsatisfactory.

One hundred and seventy-seven samples of specially designated milks were chemically examined, and one "Tuberculin Tested" milk, 18 "Accredited" milks and one Pasteurised milk, were found to be below standard.

The following samples were also examined :—39 Sterilised milks and 1 skimmed milk. They were all found to be satisfactory except 4 samples of sterilised milk.

Action Taken.—Of the 195 unsatisfactory samples of ordinary milk, 97 were informal and on these no direct action could be taken, but "follow-up" samples were obtained where possible.

In 59 cases, representing 69 unsatisfactory samples (two or more having been taken simultaneously from the same purveyor in several instances), the adulterations were small and cautions only were issued. Eight prosecutions were instituted in respect of 19 samples containing added water, and four prosecutions in respect of 4 samples found to be deficient in fat. In the remaining 6 instances no action was considered necessary.

One hundred and eighty-seven samples, which were below the presumptive standard in solids-not-fat, were found by the Freezing Point Depression test *not* to be adulterated with added water.

As regards the graded milks, proceedings were instituted against two producers in respect of 7 samples of "Accredited" milk found to contain added water : in addition, there were 11 unsatisfactory informal samples. Cautions were issued in respect of 1 sample of Pasteurised milk and 3 samples of Sterilised milk which contained added water, and one sample of Sterilised milk which was deficient in fat. One informal sample of "Tuberculin Tested" milk contained added water.

In total, 64 retailers or producers were cautioned, and 14 were prosecuted. Fines amounting to £81 5s. 0d., together with £28 19s. 0d. costs, were imposed.

(2) GENERAL ARTICLES OF FOOD.

Four hundred and ninety-eight general articles of Food and Drugs were examined, and 23 were found to be adulterated or below standard.

Proceedings were taken against a Wholesale Grocer for selling lard which consisted entirely of foreign fat, and fines and costs amounting to £5 11s. 6d. were imposed. The action was taken as a result of the examination of 3 formal samples.

Cautions were issued in respect of the following official samples :—

- 2 Raspberry Jam.
- 1 Sausage.

Seventeen informal samples were found to be adulterated, viz :—

- 1 Almonds, ground.
- 2 Dripping.
- 4 Jam, Blackcurrant.
- 2 Jam, Raspberry.
- 1 Jam, Strawberry,
- 1 Lard,
- 2 Ointment, Calomel,
- 3 Sausage,
- 1 Suet, Shredded Beef,

PREVENTION OF, AND CONTROL OVER, INFECTIOUS DISEASE.

A scheme under Section 63 of the Local Government Act, 1929, has been approved by the Minister of Health. By this scheme the Isolation Hospital Services in the County, apart from smallpox, will be provided in six areas and hospitals will be established—where they do not already exist—to serve these areas.

SMALLPOX.—No case of Smallpox was recorded in 1937, a similar experience to that of last year. The last case recorded in the County was in 1930.

SCARLET FEVER.—The incidence of this disease in the County was less than that for the previous year. There were 1,780 notifications as against 1,868 last year, 1,217 in Urban Districts and 563 in Rural Districts. Six deaths occurred in Urban Districts and 2 in Rural Districts. The case rate per thousand of the population is 2.40 compared with 2.33 for England and Wales as a whole. The death-rate in both the Urban and Rural Districts is 0.01. The prevailing type of the disease was mild.

DIPHTHERIA.—More cases were notified in 1937 than in the previous year, the numbers being 986 as against 709. The increase was general and in the Urban Districts there were 821 cases compared with 583 in 1936. One hundred and sixty-five cases were notified in Rural Districts as against 126 in the previous year. The case rate was 1.33 compared with 1.49 for England and Wales. Fifty-nine deaths occurred in Urban Districts with a death-rate of 0.10 per thousand of the population. Six died in Rural Districts which yields a death-rate of 0.03. On reference to the tables at the end of the Report the numbers and death-rates for each Sanitary District will be found. The prevailing form of diphtheria, although more severe than scarlet fever, was mild. Cases were notified in 34 of the 35 Sanitary Districts.

By arrangement with the District Medical Officers of Health, the Assistant Medical Officers carried out Schick testing and immunisation in children attending schools in the Aldridge, Brierley Hill, Brownhills, Leek, Rugeley, Sedgley, Stafford, Uttoxeter, Wednesfield and Willenhall Urban Districts, and the Cannock and Tutbury Rural Districts. The work undertaken was a continuation of that started in previous years, except in Wednesfield U.D. and Tutbury R.D., where it was first commenced in 1937.

Full advantage has been taken of the facilities afforded at the County Laboratory for bacteriological investigations, and 13,649 specimens were sent by medical practitioners, compared with 10,994 in the previous year. This included 85 virulence tests undertaken in special cases, and 54 tests in connection with a special investigation.

ENTERIC FEVER.—Five notifications of typhoid fever in Urban and seventeen in Rural Districts were received during the year, compared with the total of 26 in 1936. One death occurred in an Urban District. The case rate was 0.03 compared with 0.05 for England and Wales. On reference to the tables at the end of the report, the areas in which these cases occurred will be seen.

ENCEPHALITIS LETHARGICA.—Five cases were notified during 1937 but thirteen deaths were reported, and the districts in which they occurred will be found in the tables at the end of the Report.

DYSENTERY.—During the year 132 cases of dysentery were notified. Forty-one of these occurred in Bilston, 17 at Wednesfield and the remainder in the following districts:—Aldridge U.D. 3; Biddulph U.D. 1; Brownhills U.D. 2; Cannock U.D. 6; Coseley U.D. 1; Sedgley U.D. 1; Stafford M.B. 3; Tipton U.D. 3; Willenhall U.D. 10; Cannock R.D. 19; Cheadle R.D. 1; Stafford R.D. 1; Stone R.D. 23.

At Bilston the cases constituted a small epidemic and arrangements had to be made for the treatment of the majority at the County Council's Hospital at Wordsley. Apart from this co-operation, extensive use was made of the Laboratory facilities for diagnosis and the ascertainment of carriers.

CEREBRO-SPINAL FEVER.—During the year, 27 cases were notified, 20 in Urban Districts and 7 in Rural Districts. In no instance did these cases constitute an epidemic. The number of deaths from cerebro-spinal fever registered during the year is 17.

Fifty-four specimens of cerebro-spinal fluid were examined in the County Bacteriological Laboratory. In addition, 38 swabs were examined and 3 anti-meningococcal precipitation tests performed. In various areas throughout the County the services of Consultants are at the disposal of General Practitioners, and special arrangements have been made for the cerebro-spinal fluid to be sent to the Laboratory in a portable incubator, because these organisms do not survive if sent through the post in the ordinary way.

Measles—Whooping Cough—Diarrhoea and Enteritis—Influenza.

With reference to non-notifiable infectious diseases, the deaths from measles, whooping cough, diarrhoea and enteritis are as follows :—

MEASLES.—There were 31 deaths in Urban Districts with a death-rate of 0.06, and 5 deaths in Rural Districts with a death-rate of 0.03. As the disease is not notifiable the number of cases is unknown, but from the returns sent in by Head Teachers of Elementary Schools, I find that a total of 2,655 cases of measles and 88 cases of German measles occurred in children of school age.

At the same time, it must be pointed out that the cases so reported relate only to the County Elementary Education Area, having an estimated population of 470,000 out of 741,900 for the Administrative County, and consequently there must have been many more cases.

WHOOPING COUGH.—In 1937 there were 36 deaths in Urban Districts with a death-rate of 0.06 and 8 deaths in Rural Districts with a death-rate of 0.04. The deaths occurred in 15 of the 25 Urban Districts ; only 5 of the 10 Rural Districts were affected. The school teachers in the County Elementary Education Area reported 974 cases in children of school age, but the disease specially attacks children during infancy, and is more fatal at that period of life. As the disease is not notifiable we have no accurate knowledge of its incidence.

DIARRHŒA AND ENTERITIS.—47 deaths occurred in Urban Districts with a death-rate of 4.7 per thousand live births, and 8 in Rural Districts with a death-rate of 2.8 per thousand births, in children under 2 years of age. The cases occurred in 14 of the Urban Districts and in 4 of the Rural Districts.

INFLUENZA.—In 1937 there were 254 deaths in Urban and 105 in Rural Districts, as compared with 91 and 30, respectively, during the previous year.

128 *Prevention of, and Control over, Infectious Disease—*
Vaccination.

The number of cases of Notifiable Infectious Diseases, with the deaths, in the Administrative County during 1937, are as follows :—

Diseases.	Notifications.		Deaths.		†Cases admitted to Hospital.
	Urban.	Rural.	Urban.	Rural.	
Small-pox	—	—	—	—	—
Scarlet Fever	1,217	563	6	2	1,088
Diphtheria	821	165	59	6	840
Enteric Fever	5	17	1	.....	11
Puerperal Fever	20	4	} 12	3	79
Puerperal Pyrexia	75	29		*	22†
Erysipelas	289	52	*	*	19
Cerebro-Spinal Fever	20	7	15	2	3
Poliomyelitis	4	5	2	2	32†
Pneumonia	1,083	266	510	93	2
Encephalitis Lethargica	3	2	9	4	53
Dysentery	88	44	*	*	

* Not classified in Registrar-General's Return

† Information obtained from District Reports.

‡ Complete figures not available.

VACCINATION..

The ineffectiveness of the working of the Vaccination Acts is shown on examination of the Returns of the various Vaccination Officers for the year 1st January to 31st of December, 1936, where it is seen that out of 10,296 children born during the year in whom vaccination was possible, only 25.8 per cent. were subsequently protected against small-pox.

CANCER.

In the following table, the deaths from Cancer during 1937, in age and sex groups, in the Urban and Rural Districts of the County, are shown :—

Age Groups	Urban Districts.			Rural Districts.			Grand Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
0-	—	—	—	—	—	—	—
1-	1	—	1	—	—	—	1
2-	—	—	—	1	—	1	1
5-	1	1	2	—	1	1	3
15-	3	4	7	1	—	1	8
25-	13	6	19	2	1	3	22
35-	13	31	44	6	7	13	57
45-	47	52	99	12	18	30	129
55-	123	106	229	32	25	57	286
65-	118	97	215	52	51	103	318
75-	54	58	112	24	28	52	164
Totals	373	355	728	130	131	261	989

Attention has been directed to the increase in the number of deaths from this cause in recent years. Leaflets, giving information on the matter, have been distributed at the Maternity and Child Welfare Centres in the Health Visiting Area, in which the urgent need for early treatment is stressed, and it is pointed out that in many instances the early stages of this disease are painless, so that many sufferers do not seek advice until it is too late to expect a definite cure. The surgical treatment required is given at the voluntary hospitals. At the North Staffordshire Royal Infirmary treatment by radium is available, and, in special instances, cases requiring deep ray therapy are referred to the Birmingham Dudley Road Institution. The County Council have now decided to provide a hospital of 400 beds in the north of the County, and a similar one in the south of their area, under the scheme adopted as a result of the Local Government Act, 1929. These Hospitals will provide surgical treatment, but those cases requiring either radium treatment or deep ray therapy will be referred to the Institutions already mentioned.

TUBERCULOSIS.

At the end of the year there were 6,714 cases of all forms of tuberculosis on the registers of the District Medical Officers of Health, made up as follows :—

TOTAL CASES.	PULMONARY.			NON-PULMONARY.		
	M.	F.	Total.	M.	F.	Total.
6,714	2,390	2,224	4,614	1,114	986	2,100

This indicates that there is one case of tuberculosis in every 111 persons, or just 9 per 1,000 of the population, and, on reference to the mortality tables which follow, it will be found that approximately one death occurred amongst thirteen cases in the year.

During the year, 412 persons died from pulmonary tuberculosis, giving a death-rate of 0.56 per thousand of the population, whilst 90 deaths occurred from other forms of tuberculosis with a death-rate of 0.12.

The following table shows new cases of tuberculosis, including primary notifications and cases which came to notice otherwise than by formal notification, and deaths from the disease, classified according to ages and sex :—

AGE PERIODS.	NEW CASES.				DEATHS.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0-	1	—	1	6	—	1	4	4
1-	2	5	25	26	1	1	17	15
5-	16	15	32	21	2	7	8	6
10-	11	15	19	17				
15-	25	48	19	13				
20-	57	65	7	9	31	58	6	2
25-	73	81	15	9	49	47	6	6
35-	83	57	10	2	61	29	4	2
45-	65	27	4	1	42	12	2	1
55-	45	13	—	3	41	9	3	3
65 and upwards	4	9	1	—	14	7	1	—
Totals	382	335	133	107	241	171	51	39

In the General Tables at the end of the Report, the death-rates for each Sanitary District during 1937 will be found.

On reference to the tables, it will be seen that, as regards the pulmonary form of the disease, the incidence is greater in males than in females, but is more marked in females between the ages of 15 and 34. It will also be noted that more deaths occur in young women, but after the age of 25 more men are fatally affected. The non-pulmonary forms of the disease occur mainly before adult life is reached, and are particularly fatal during the first years of life. In the succeeding years the disease is more chronic, and, whilst resulting in much disability and ill-health, does not often cause death. The non-pulmonary forms arise from infection through tuberculous milk and from open cases of pulmonary tuberculosis.

The following shows the number of primary notifications received since 1913 :—

1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
1722	1399	1233	1048	873	856	699	642	929	971	1029	974	1232

1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
1406	1106	1194	1017	1021	1129	1074	1011	929	825	831	858

With regard to notifications, speaking generally, this duty is satisfactorily performed in the County. As already noted, the ratio of deaths to cases is approximately one to thirteen and this compares favourably with the figure laid down by experts that for every death there are at least ten persons suffering from the disease. The District Medical Officers of Health reported 99 cases, as against 90 last year, that had come to their knowledge in various ways not having been previously notified. It was found that 49 had died without being formally notified under the Regulations ; 28 were taken from the death returns of the local Registrars, and 19 were transferable deaths sent by the Registrar-General, that is to say the death occurred outside the district where the person usually resided. Two cases were notified to Medical Officers of Health after the death had occurred.

The ratio of non-notified tuberculosis deaths to the total tuberculosis deaths is 1 in 10.24 ; roughly 9 out of 10 deaths were notified under the Regulations before death.

With regard to the unreported cases, I am afraid we cannot expect always to receive the notifications before death, especially where the disease is extremely acute, and some cases are bound to occur in which the practitioner was under the impression that the disease had been previously notified.

DISPENSARIES AND TREATMENT.

The Tuberculosis Dispensaries in the County are under the control of the Joint Board for Tuberculosis. There are thirteen Dispensaries, of which four are main Dispensaries and have been built specially for the purpose.

An account of the treatment afforded for tuberculosis will be found in the Annual Report of the Joint Board of the Staffordshire County Council and the Wolverhampton and Dudley County Boroughs. This body is only responsible for treatment and not for measures of prevention, which duty falls upon the District Councils, and their contribution towards the measures for dealing with this complex subject relates to the environmental conditions of the patient, among these being adequate housing in each district, which is of paramount importance. An investigation of the environmental conditions of each patient is made by the Health Visitors as soon as the disease is notified, and although every effort is made to arrange the accommodation in the house so that the patient can have a room to himself, this has only been found possible in 39.2 per cent. of the cases reviewed in the Joint Board's Area in 1937.

Although this figure is still too low and every effort should be made to improve it, it should be pointed out that many of the cases investigated were suffering from non-pulmonary, and therefore, non-infectious disease, and some were T.B.-minus cases and also non-infectious. Also, this percentage of cases having bedrooms to themselves has improved gradually during the last ten years, for in 1928 the percentage of patients having separate bedrooms was 25.1 compared with last year's figure of 39.2. In every case in which overcrowding was brought to our notice, the attention of the District Medical Officer of Health was specially drawn to the matter.

In this connection, I desire to emphasize the necessity of District Councils utilising to the full all the powers they possess under the Housing Acts, for it is one of the primary duties of a Sanitary Authority to provide adequate housing accommodation for the population in their area.

During the year, no official action was found to be necessary under the Public Health (Prevention of Tuberculosis) Regulations, 1925, which prohibit persons suffering from pulmonary tuberculosis engaging in milking operations, etc. One such case was, however, brought to notice by a Tuberculosis Officer, and the Local Medical Officer of Health dealt with the matter satisfactorily, without having to evoke the powers given by the Regulations.

No action was taken under Section 62 of the Public Health Act, 1925, or Section 172 of the Public Health Act, 1936, during the year.

The accompanying table shows the death-rates in the Urban and Rural Districts of the County from 1914 :—

Year.	Death Rate per 1,000 of the Population.			
	Phthisis.		Other forms of Tuberculosis.	
	Urban.	Rural.	Urban.	Rural.
1914	0.89	0.54	0.31	0.20
1915	0.94	0.67	0.34	0.29
1916	1.01	0.80	0.40	0.29
1917	1.01	0.74	0.34	0.31
1918	1.03	0.88	0.31	0.28
1919	0.83	0.61	0.22	0.30
1920	0.75	0.56	0.30	0.21
1921	0.80	0.53	0.23	0.21
1922	0.80	0.55	0.24	0.17
1923	0.75	0.58	0.25	0.22
1924	0.73	0.58	0.22	0.20
1925	0.83	0.49	0.22	0.14
1926	0.74	0.50	0.22	0.11
1927	0.73	0.44	0.21	0.22
1928	0.64	0.48	0.14	0.13
1929	0.76	0.54	0.15	0.12
1930	0.72	0.54	0.15	0.13
1931	0.78	0.52	0.17	0.13
1932	0.64	0.42	0.16	0.14
1933	0.72	0.50	0.14	0.08
1934	0.67	0.43	0.11	0.16
1935	0.67	0.35	0.13	0.08
1936	0.53	0.34	0.11	0.08
1937	0.60	0.41	0.13	0.11

W. D. CARRUTHERS,

County Medical Officer of Health.

September, 1938.

TABLES.

Table showing Population, Number of Persons per acre, Birth and Death-rates as well as the Death-rates at all ages and among Children under 1 year, and the Death-rates from Zymotic Diseases, Tuberculosis, Diseases of the Respiratory Organs, &c.

URBAN.

District.	Population at all ages.		Number of Persons per acre.	Live Birth-rate per 1,000 of population.	Still-births, Rate per 1,000 of Population.	Crude death-rate per 1,000 of population.	Adjusted death-rate by comparability factor.	Mortality in children under one year per 1000 registered live births.	Zymotic Mortality.						Per 1,000 of Population.							Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Other Respiratory Diseases.	Cirrhosis of Liver.	Nephritis.	Congenital Debility and Malformation, Premature Birth.						
	Per 1,000 of population.								Typhoid and Paratyphoid Fevers.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Per 1,000 live Births.																					
	Census 1931 of areas as constituted after changes in Boundary.	Estimated to middle of 1937.														Diarrhoea, etc. (under 2 years).																				
Aldridge	14,446	17,890	1.9	18.6	1.23	10.6	12.1	72	.....	.....	0.11	.....	0.06	0.06	.....	0.56	0.11	1.57	0.22	0.84	.....	0.06	0.28	1.06	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Amblecote	3,099	2,933	4.4	11.6	.....	14.3	13.9	29	.....	.....	.....	.....	.....	.....	.....	0.34	0.68	1.70	0.34	0.34	0.68	.....	.....	1.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Biddulph	8,990	9,741	1.5	18.7	0.92	11.1	12.5	44	.....	.....	.....	0.10	.....	.....	.....	0.41	0.10	0.51	0.51	0.62	0.10	.....	.....	0.21	0.41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bilston	31,221	31,400	16.8	19.2	0.89	12.5	15.3	68	.....	.....	.....	.....	0.06	.....	11.6	0.54	0.13	1.24	0.83	1.27	0.10	0.03	0.22	0.67	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brierley Hill	44,671	45,880	7.7	17.5	0.65	11.2	12.3	71	.....	.....	0.09	.....	0.07	0.09	1.2	0.54	0.13	1.31	0.41	0.72	0.20	0.07	0.39	0.85	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brownhills	18,368	19,540	3.1	18.5	0.77	12.2	14.2	86	.....	.....	0.05	0.05	0.10	0.10	.....	0.31	0.10	1.13	0.46	1.02	0.20	0.10	0.36	1.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cannock	35,300	36,490	4.5	19.2	0.74	11.2	12.4	54	.....	.....	0.08	.....	0.11	0.14	4.3	0.30	0.14	1.01	0.38	1.10	0.05	.....	.....	0.27	0.60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coseley	25,137	28,120	8.5	19.5	1.00	11.1	12.9	64	.....	.....	0.07	.....	0.11	0.07	3.6	0.53	.....	1.35	0.50	1.24	0.07	0.04	0.21	0.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Darlaston	20,053	20,050	13.1	19.1	0.85	12.4	15.4	31	.....	.....	.....	.....	0.05	0.05	2.6	1.00	0.35	1.55	0.55	1.05	0.05	0.05	0.20	0.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kidsgrove	14,940	14,620	3.6	15.5	1.03	10.7	12.3	53	.....	.....	.....	.....	0.21	0.07	.....	0.48	0.41	1.44	0.07	0.34	0.07	.....	.....	0.14	0.55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leek	19,442	19,380	4.5	12.4	0.57	12.0	12.5	62	.....	.....	.....	.....	.....	0.05	4.1	0.72	.....	1.39	0.36	0.77	0.10	0.05	0.05	0.46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lichfield	8,574	8,710	2.4	17.1	0.23	13.4	11.7	94	0.11	0.23	0.11	1.72	0.23	1.03	0.11	0.34	1.03
Newcastle	54,739	62,540	7.0	17.6	1.04	12.6	14.1	70	0.03	0.10	0.38	4.5	0.48	0.19	1.39	0.37	0.83	0.13	0.02	0.37	0.83

Deaths occurring during the year 1937 classified according to Diseases and Localities,
together with Births occurring during the year.

URBAN

District	Live Births.	Still-Births.	Deaths from all causes.	Deaths under 1 year.	Smallpox.	Typhoid and Paratyphoid Fevers.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Syphilis.	General Paralysis of the Insane, Tabes Dorsalis.	Cancer, Malignant Disease.	Diabetes.	Cerebral Haemorrhage, etc.	Heart Disease.	Aneurysm.	Other Circulatory Diseases.	Bronchitis.	Pneumonia.(All Forms)	Other Respiratory Diseases.	Peptic Ulcer.	Dysentery, etc. (under 2 years).	Appendicitis.	Cirrhosis of Liver.	Other Diseases of Liver, etc.	Other Digestive Diseases.	Nephritis.	Puerperal Sepsis.	Causes of Puerperal Causes.	(Congenital Debility, Premature Birth, Malformation, etc.	Senility.	Suicide.	Other Violence.	Other Defined Diseases.	Causes ill-defined or Unknown.	
Aldridge	332	22	190	24	-	-	2	-	1	1	5	-	-	10	2	4	28	2	8	42	-	2	4	15	-	5	1	19	10	3	10	16	-									
Amblecote	34	-	42	1	-	-	-	-	-	-	4	1	-	1	2	1	5	1	4	7	1	2	1	1	1	2	-	3	-	2	-	2	-	2	-	2	-	2	-			
Biddulph	182	9	108	8	-	-	-	1	-	-	13	-	1	4	1	1	5	2	8	24	2	5	6	1	1	2	-	4	3	1	6	10	-	-	-	-	-	-	-	-	-	
Bilston	602	28	391	41	-	-	-	-	2	-	17	-	3	17	4	1	39	3	18	95	10	26	40	3	4	7	1	21	12	4	10	35	-	-	-	-	-	-	-	-	-	
Brierley Hill	804	30	514	57	-	-	4	-	3	4	31	1	-	25	6	6	60	7	37	86	24	19	33	9	2	1	39	19	3	21	39	-	-	-	-	-	-	-	-	-	-	
Brownhills	361	15	238	31	-	-	1	1	2	2	4	1	2	6	2	1	22	2	13	57	7	9	20	4	-	7	1	20	4	2	18	16	-	-	-	-	-	-	-	-	-	
Cannock	699	27	410	38	-	-	3	-	4	5	17	-	1	11	5	1	37	5	26	78	18	14	40	2	3	3	22	23	6	25	36	1	-	-	-	-	-	-	-	-	-	
Coseley	549	28	313	35	-	-	2	-	3	2	9	2	1	15	-	2	38	3	22	60	5	14	35	2	4	2	21	29	1	8	17	-	-	-	-	-	-	-	-	-	-	
Darlaston	382	17	248	12	-	-	-	-	1	1	5	1	-	20	7	-	31	7	11	52	11	11	21	1	2	1	8	21	2	6	17	-	-	-	-	-	-	-	-	-	-	
Kidsgrove	226	15	156	12	-	-	-	-	3	1	2	-	-	7	6	-	21	2	6	55	1	6	1	1	1	3	8	4	1	6	11	2	-	-	-	-	-	-	-	-	-	
Leek	241	11	232	15	-	-	-	-	-	1	8	-	-	14	-	1	27	2	14	77	13	7	15	2	1	1	9	5	4	6	16	-	-	-	-	-	-	-	-	-	-	
Lichfield	149	2	117	14	-	-	-	-	-	1	5	-	1	2	1	-	15	2	5	25	14	2	9	-	1	-	9	1	-	2	14	-	-	-	-	-	-	-	-	-	-	-
Newcastle	1102	65	791	77	-	-	-	2	6	24	22	-	-	30	12	-	87	14	38	197	20	23	52	8	3	5	6	1	7	15	23	1	3	52	20	4	56	58	1	-	-	-

DISTRICT	Population at all ages.		Number of Persons per acre.	Live Birth-rate per 1,000 of population.	Still-births. Rate per 1,000 of population.	Crude death-rate per 1,000 of population.	Adjusted death-rate by comparability factor.	Mortality in children under one year, per 1,000 registered live births.	Zymotic Mortality.						Per 1,000 of Population.										
	Census 1931 of areas as constituted after changes in Boundary.	Estimated to middle of 1937.							Typhoid and Paratyphoid Fevers.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Diarrhoea, etc. (under 2 years).	Per 1,000 Live Births	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Other Respiratory Diseases.	Cirrhosis of Liver.	Nephritis.	Congenital Debility and Malformation, Premature Birth.
Rowley Regis.....	41,235	43,550	11.4	18.8	0.85	12.0	14.3	65	.....	.....	0.09	0.05	0.02	0.05	7.3	0.83	0.14	1.15	0.71	0.85	0.09	0.02	0.18	0.67
Rugeley	7,137	7,528	2.6	16.9	0.93	12.0	12.2	71	.....	.....	.....	.....	.....	.....	.....	0.53	0.13	0.66	0.80	1.33	0.27	.....	0.40	0.93
Sedgley	19,262	20,210	5.3	14.4	0.59	11.0	11.9	51	.....	.....	0.05	.....	.....	0.10	.....	0.30	0.05	0.99	0.35	0.74	.....	.....	0.25	0.30
Stafford	30,851	31,680	6.2	14.7	0.57	11.5	11.8	30	0.03	.....	0.03	.....	.....	.....	2.1	0.76	0.03	1.42	0.32	0.82	0.13	0.03	0.35	0.25
Stone	6,399	6,376	3.9	12.4	0.63	10.8	9.7	76	.....	.....	.....	.....	.....	.....	.....	0.16	.....	1.73	0.31	0.78	.....	.....	0.31	0.78
Tamworth	11,711	11,950	4.4	14.6	0.75	11.9	11.7	46	.....	.....	.....	.....	0.08	0.08	5.7	0.42	0.17	1.09	0.42	0.17	0.08	0.08	0.50	0.33
Tettenhall	5,967	6,656	2.7	14.4	0.60	10.5	9.6	21	.....	.....	0.15	.....	.....	.....	10.4	0.30	.....	2.10	0.75	0.45	.....	0.15	0.30	.....
Tipton	35,814	36,670	16.9	21.8	0.68	12.9	15.2	79	.....	.....	0.11	.....	0.11	0.19	10.0	0.82	0.08	1.42	0.68	1.42	0.05	0.03	0.08	0.76
Uttoxeter	6,234	6,776	2.0	17.1	0.88	11.5	11.5	69	.....	.....	.....	.....	.....	.....	.....	0.74	0.15	2.36	0.15	0.30	0.15	.....	0.15	0.74
Wednesbury	31,531	33,130	16.4	18.1	0.85	12.6	14.5	62	.....	.....	0.15	.....	0.09	0.06	1.7	0.81	0.06	1.36	0.91	0.94	0.09	0.03	0.24	0.51
Wednesfield	9,106	12,960	5.2	22.0	1.39	10.5	12.3	77	.....	.....	.....	.....	0.08	0.15	.....	0.85	.....	0.77	0.39	0.62	0.23	.....	0.39	1.31
Willenhall	26,421	28,020	9.9	19.5	1.03	12.6	15.0	79	.....	.....	0.11	.....	0.04	0.04	16.5	0.89	0.21	1.14	0.61	0.96	0.04	.....	0.50	0.86
Totals and Averages	530,648	562,800	5.6	17.9	0.83	11.9	13.3	64	0.00	.....	0.06	0.01	0.06	0.10	4.7	0.60	0.13	1.29	0.50	0.91	0.10	0.03	0.28	0.68
125 large towns in England .....	.....	.....	.....	14.9	0.67	12.5	.....	62	0.01	.....	0.03	0.01	0.04	0.08	7.9	.....	.....	.....	.....	.....	.....	.....	.....	.....
148 smaller towns resident popn. 25,000 to 50,000.	.....	.....	.....	15.3	0.64	11.9	.....	55	0.00	.....	0.02	0.01	0.03	0.05	3.2	.....	.....	.....	.....	.....	.....	...	.....	.....

URBAN—continued.

DISTRICT.	Live Births.	Still-Births.	Deaths from all causes.	Deaths under 1 year.	Smallpox.	Typhoid and Paratyphoid Fevers.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Syphilis.	General Paralysis of the Insane, Tabes Dorsalis.	Cancer, Malignant Disease.	Diabetes.	Cerebral Hemorrhage, etc.	Heart Disease.	Aneurysm.	Other Circulatory Diseases.	Bronchitis.	Pneumonia (all Forms).	Other Respiratory Diseases.	Peptic Ulcer.	Diarrhœa, etc. (under 2 years).	Appendicitis.	Cirrhosis of Liver.	Other Diseases of Liver, etc.	Other Digestive Diseases.	Nephritis.	Puerperal Sepsis.	Other Puerperal Causes.	Congenital Debility, Premature Birth, Malformation, etc.	Senility.	Suicide.	Other Violence.	Other Defined Diseases.	Causes ill-defined or unknown.
Rowley Regis	819	37	521	53	—	—	4	2	1	2	19	—	—	36	6	—	1	50	6	25	119	1	17	31	37	4	6	6	4	1	—	7	8	1	2	29	25	10	19	41	1
Rugeley	127	7	90	9	—	—	—	—	—	—	5	—	—	4	1	—	—	5	1	5	19	—	3	6	10	2	—	—	1	—	—	4	3	—	—	7	3	1	4	6	—
Sedgley	292	12	222	15	—	—	1	—	—	2	14	—	1	6	1	—	—	20	2	27	41	—	7	7	15	—	2	—	2	—	1	2	5	—	1	6	20	4	13	22	—
Stafford	467	18	363	14	—	1	1	—	—	—	19	—	—	24	1	3	1	45	6	14	80	—	27	10	26	4	2	1	2	1	2	6	11	1	1	8	23	5	6	32	—
Stone	79	4	69	6	—	—	—	—	—	—	6	—	1	1	—	—	—	11	1	4	13	—	—	2	5	—	—	—	—	—	—	1	2	—	2	5	5	1	4	5	—
Tamworth	174	9	142	8	—	—	—	—	1	1	4	—	1	5	2	—	1	13	4	11	39	—	7	5	2	1	1	1	—	1	—	3	6	—	—	4	15	1	7	6	—
Tettenhall	96	4	70	2	—	—	1	—	—	—	2	—	—	2	—	1	—	14	1	5	16	—	2	5	3	—	—	1	—	1	—	1	2	—	2	—	4	1	2	4	—
Tipton	801	25	473	63	—	—	4	—	4	7	19	1	1	30	3	—	2	52	6	29	83	—	14	25	52	2	2	8	3	1	3	6	3	1	1	28	36	1	20	26	—
Uttoxeter	116	6	78	8	—	—	—	—	—	—	1	—	1	5	1	—	—	16	1	4	18	—	8	1	2	1	1	—	—	—	—	2	1	—	—	5	2	—	1	6	1
Wednesbury	601	28	417	37	—	—	5	—	3	2	13	—	1	27	2	—	2	45	7	26	87	—	14	30	31	3	7	1	—	1	1	6	8	—	1	17	33	3	19	22	—
Wednesfield	285	18	136	22	—	—	—	—	1	2	2	—	—	11	—	—	1	10	3	8	21	2	3	5	8	3	2	—	1	—	1	4	5	1	—	17	8	1	8	8	—
Willenhall	546	29	352	43	—	—	3	—	1	1	8	2	—	25	6	—	—	32	5	19	69	—	9	17	27	1	3	9	3	—	2	10	14	1	2	24	22	4	10	23	—
Totals	10066	466	6683	645	—	1	31	6	36	59	254	9	15	338	71	8	17	728	95	387	1460	6	248	280	510	56	53	47	30	18	29	122	159	12	21	382	349	65	287	488	6

RURAL

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District.	Population at all ages.		Mean Area per Person in acres.	Live Birth-rate per 1,000 of population.	Still-births, Rate per 1,000 of Population.	Crude death-rate per 1,000 of population.	Adjusted death-rate by comparability factor.	Mortality in children under one year per 1000 registered live births.	Zymotic Mortality.							Per 1000 of Population.									
	Census 1931 of areas as constituted after changes in Boundary.	Estimated to middle of 1937.							Per 1000 of population.							Per 1000 Live Births under 2 years	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Other Respiratory Diseases.	Cirrhosis of Liver.	Nephritis.	Congenital Debility & Malformation, Premature Birth.
									Typhoid and Paratyphoid Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.											
Cannock	20,792	21,620	2.6	16.5	1.11	12.1	12.9	48	.....	.....	0.09	.....	0.14	0.05	14.0	0.37	0.23	1.43	0.23	0.46	0.05	.....	0.19	0.46
Cheadle	28,102	30,280	2.0	16.7	0.89	12.4	13.0	67	.....	.....	.....	.....	0.07	0.07	.....	0.73	0.07	1.62	0.20	0.36	0.10	0.07	0.56	0.76
Leek	14,435	15,970	4.5	14.0	0.88	12.1	12.0	22	.....	.....	.....	.....	.....	.....	.....	0.31	0.13	0.94	0.13	0.75	0.13	.....	0.13	0.25
Lichfield	31,551	31,680	2.6	15.8	0.63	11.1	11.5	44	.....	.....	0.03	0.03	0.03	.....	2.0	0.54	0.06	1.39	0.19	0.57	0.16	.....	0.41	0.54
Newcastle	16,872	16,220	2.5	13.6	0.80	13.6	13.5	50	.....	.....	.....	0.06	0.06	.....	.....	0.37	0.12	1.79	0.37	0.62	0.12	0.06	0.55	0.43
Seisdon	13,850	16,160	2.6	17.1	0.62	11.7	10.3	72	.....	.....	0.06	.....	0.06	0.06	.....	0.43	.....	1.67	0.68	0.56	0.25	.....	0.56	0.99
Stafford	12,895	13,290	6.0	18.0	0.60	12.6	11.1	67	.....	.....	.....	.....	.....	0.08	4.2	0.38	0.30	0.68	0.30	0.30	0.23	0.08	0.53	0.68
Stone	11,945	12,180	5.1	14.4	0.66	10.3	9.5	6	.....	.....	.....	.....	.....	0.08	.....	.....	0.08	1.56	0.08	0.49	0.08	.....	0.33	0.16
Tutbury	10,356	12,100	2.6	16.5	0.58	13.7	12.2	55	.....	.....	0.08	.....	.....	.....	5.0	0.25	.....	1.65	0.50	0.66	0.08	0.17	0.41	0.50
Uttoxeter	8,906	9,600	5.9	12.6	0.31	14.0	12.3	58	.....	.....	.....	.....	.....	.....	.....	0.10	0.10	1.88	0.21	0.52	0.10	0.21	0.52	0.63
Totals and Averages	169,704	179,100	3.3	15.7	0.75	12.2	12.0	51	.....	.....	0.03	0.01	0.04	0.03	2.8	0.41	0.11	1.46	0.27	0.52	0.13	0.04	0.42	0.56

District.	Live Births.	Still-Births.	Deaths from all causes.	Deaths under 1 year.	Smallpox.	Typhoid and Paratyphoid Fevers.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Syphilis.	General Paralysis of the Insane, Tabes Dorsalis.	Cancer, Malignant Disease.	Diabetes.	Cerebral Hemorrhage, &c.	Heart Disease.	Aneurysm.	Other Circulatory Diseases.	Bronchitis.	Pneumonia (all forms)	Other Respiratory Diseases.	Peptic Ulcer.	Dysentery, &c. (under 2 years).	Appendicitis.	Cirrhosis of Liver.	Other Diseases of Liver, &c.	Other Digestive Diseases.	Nephritis.	Puerperal Sepsis.	Other Puerperal Causes.	Congenital Debility, Premature Birth, Malformation, etc.	Senility.	Suicide.	Other Violence.	Cruel Defined Diseases.	Causes ill-defined or unknown.		
Cannock	357	24	261	17	-	-	2	-	3	1	15	-	-	8	5	1	1	31	3	13	63	-	10	5	10	1	3	5	1	-	2	4	1	2	10	23	4	11	19	-			
Cheadle	506	27	375	34	-	-	-	-	2	2	17	1	1	22	2	1	-	49	4	18	91	2	24	6	11	3	1	-	1	2	3	8	17	1	2	23	19	-	13	29	-		
Leek	223	14	194	5	-	-	-	-	-	-	7	-	-	5	2	-	2	15	1	14	66	-	7	2	12	2	2	-	1	-	3	4	-	-	4	10	2	14	15	2			
Lichfield	500	20	353	22	-	-	1	1	1	-	18	-	-	17	2	-	2	44	5	17	87	-	21	6	18	5	2	2	1	-	1	6	13	-	2	17	13	6	21	24	1		
Newcastle	221	13	221	11	-	-	-	1	1	-	15	1	-	6	2	-	-	29	2	6	51	-	9	6	10	2	-	-	1	1	2	4	9	-	2	7	22	1	11	20	-		
Seisdon	276	10	189	20	-	-	1	-	1	1	3	1	1	7	-	1	2	27	5	12	32	-	9	11	9	4	-	-	1	-	-	3	9	-	1	16	7	-	7	17	1		
Stafford	239	8	167	16	-	-	-	-	-	1	9	1	-	5	4	1	-	9	2	12	49	-	9	4	4	3	-	-	1	-	1	2	2	7	-	-	9	7	2	7	16	-	
Stone	176	8	125	1	-	-	-	-	-	1	8	-	-	-	1	-	-	19	1	7	35	-	8	1	6	1	3	2	-	-	-	2	4	-	1	2	4	3	6	10	-		
Tutbury	200	7	166	11	-	-	1	-	-	-	7	-	-	3	-	-	-	20	3	13	42	1	11	6	8	1	2	1	1	2	2	2	5	-	-	6	10	1	5	12	1		
Uttoxeter	121	3	134	7	-	-	-	-	-	-	6	-	-	1	1	-	-	18	-	6	30	-	16	2	5	1	2	2	-	-	2	-	-	-	5	1	2	6	8	1	5	12	4
Totals	2819	134	2185	144	-	-	5	2	8	6	105	4	2	74	19	4	7	261	26	118	546	3	124	49	93	23	15	8	7	8	17	35	75	3	12	100	123	20	100	174	9	141	

Table showing the number of cases of certain Infectious Diseases notified in each sanitary area during the 52 weeks ended 1st January, 1938, and the Attack-Rates per 1,000 of the population.

URBAN

District.	Estimated Population at the middle of 1937 for calculating rates.	Small-pox		Scarlet Fever		Diphtheria		Enteric Fever		* Puerperal Fever		Erysipelas		Pneumonia		Cerebro-spinal Fever Cases	Poliomyelitis Cases	Encephalitis Lethargica Cases	Puerperal Pyrexia Cases
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate				
Aldridge	17,890	.....	.....	65	3.63	16	0.89	1	0.06	.....	.....	11	0.61	51	2.85	.....	.....	.....	2
Amblecote	2,933	.....	.....	4	1.36	2	0.68	.....	.....	.....	.....	1	0.34	4	1.36	1	.....	.....	.....
Biddulph	9,741	.....	.....	35	3.59	36	3.70	.....	.....	.....	.....	3	0.31	43	4.41	1	.....	.....	.....
Bilston	31,400	.....	.....	25	0.80	21	0.67	.....	.....	.....	.....	9	0.29	93	2.96	4	1	.....	.....
Brierley Hill	45,880	.....	.....	51	1.11	23	0.50	.....	.....	2	0.04	26	0.57	53	1.16	.....	.....	.....	2
Brownhills	19,540	.....	.....	63	3.22	16	0.82	.....	.....	.....	.....	37	1.89	84	4.30	1	.....	.....	3
Cannock	36,490	.....	.....	230	6.30	49	1.34	.....	.....	4	0.11	33	0.90	40	1.10	.....	.....	.....	7
Coseley	28,120	.....	.....	17	0.60	41	1.46	1	0.04	1	0.04	17	0.60	71	2.52	2	1	2	7
Darlaston	20,050	.....	.....	22	1.10	21	1.05	.....	.....	1	0.05	2	0.10	48	2.39	.....	.....	2	7
Kidsgrove	14,620	.....	.....	20	1.37	10	0.68	.....	.....	.....	.....	18	1.23	23	1.57	.....	1	.....	2
Leek	19,380	.....	.....	44	2.27	18	0.93	.....	.....	.....	.....	7	0.36	74	0.21	.....	1	.....	1
Lichfield	8,710	.....	.....	6	0.69	8	0.92	.....	.....	1	0.11	.....	.....	4	0.46	1	.....	.....	.....
Newcastle	62,540	.....	.....	267	4.27	258	4.13	2	0.03	2	0.03	14	0.22	85	1.36	2	.....	.....	3

* The figures relate to the 39 weeks ended 2nd October 1937, and are so notifiable being notified subsequently to that date as cases of Puerperal Pyrexia.

URBAN—continued.

District.	Estimated Population at the middle of 1937 for calculating rates.	Small-pox		Scarlet Fever		Diphtheria		Enteric Fever		* Puerperal Fever		Erysipelas		Pneumonia		Cerebro-spinal Fever Cases	Poliomylitis Cases	Encephalitis Cases	Puerperal Pyrexia Cases
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate				
Rowley Regis	43,550	—	—	65	1.49	31	0.71	—	—	1	0.02	11	0.25	49	1.13	1	—	—	2
Rugeley	7,528	—	—	12	1.59	6	0.80	—	—	—	—	—	—	8	1.06	—	—	—	2
Sedgley	20,210	—	—	14	0.69	31	1.53	—	—	1	0.05	12	0.59	41	2.03	2	—	—	10
Stafford	31,680	—	—	75	2.37	14	0.44	—	—	—	—	18	0.57	69	2.18	1	—	—	8
Stone	6,376	—	—	6	0.94	9	1.41	—	—	—	—	1	0.16	10	1.57	—	—	—	—
Tamworth	11,950	—	—	12	1.00	35	2.93	—	—	—	—	6	0.50	31	2.59	2	—	—	1
Tettenhall	6,656	—	—	6	0.90	10	1.50	—	—	1	0.15	—	—	10	1.50	—	—	—	—
Tipton	36,670	—	—	38	1.04	98	2.67	—	—	1	0.03	17	0.46	115	3.14	—	—	1	3
Uttoxeter	6,776	—	—	28	4.13	—	—	—	—	—	—	1	0.15	—	—	—	—	—	2
Wednesbury	33,130	—	—	62	1.87	34	1.03	1	0.03	—	—	27	0.81	87	2.63	—	—	—	4
Wednesfield...	12,960	—	—	22	1.70	14	1.08	—	—	1	0.08	5	0.39	15	1.16	—	—	—	1
Willenhall	28,020	—	—	28	1.00	20	0.71	—	—	4	0.14	13	0.46	45	1.61	—	—	—	4

* The figures relate to the 39 weeks ended 2nd October, 1937, conditions so notifiable being notified subsequently to that date as cases of Puerperal Pyrexia.

RURAL

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District.	Estimated Population at the middle of 1937 for calculating rates.	Small-pox		Scarlet Fever		Diphtheria		Enteric Fever		* Puerperal Fever		Erysipelas		Pneumonia		Cerebro-spinal Fever Cases	Polimyelitis Cases	Encephalitis Cases	Pyrexia Cases
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate				
Cannock	21,620	.....	.....	189	8.74	33	1.53	.....	.....	1	0.05	14	0.65	39	1.80	1	1	.....	1
Cheadle	30,280	.....	.....	53	1.75	28	0.92	15	0.50	.....	.....	8	0.26	64	2.11	3	2	1	7
Leek	15,970	.....	.....	29	1.82	6	0.38	.....	.....	.....	.....	.....	.....	13	0.81	1	.....	.....	1
Lichfield	31,680	.....	.....	49	1.55	20	0.63	1	0.03	2	0.06	16	0.51	58	1.83	1	.....	.....	5
Newcastle	16,220	.....	.....	49	3.02	7	0.43	.....	.....	.....	.....	10	0.62	21	1.29	1	.....	.....	1
Seisdon	16,160	.....	.....	40	2.48	15	0.93	.....	.....	.....	.....	1	0.06	27	1.67	.....	.....	1	1
Stafford	13,290	.....	.....	47	3.54	4	0.30	.....	.....	.....	.....	1	0.08	16	1.20	.....	.....	.....	5
Stone	12,180	.....	.....	25	2.05	21	1.72	.....	.....	.....	.....	2	0.16	21	1.72	.....	.....	.....	4
Tutbury	12,100	.....	.....	43	3.55	23	1.90	.....	.....	.....	.....	.....	.....	1	0.08	.....	.....	.....	4
Uttoxeter	9,600	.....	.....	39	4.06	8	0.83	1	0.10	1	0.10	.....	.....	6	0.63	.....	2	.....	.....

* The figures relate to the 39 weeks ended 2nd October, 1937, conditions so notifiable being notified subsequently that date as cases of Puerperal Pyrexia.

Maternity and Infant Welfare

Particulars relating to the work of the Health Visitors during the year ended 31st December, 1937.

L.—LEGITIMATE.
I.—ILLEGITIMATE.

District.	Population Estimated at middle of 1937.	No. of Health Visitors at 31. 12.37.		Births.																		First Visits.			Revisits.		Total Visits.			Children on Visiting List at end of 1937.		Deaths, Removals and Transfers, of Children on Visiting List during 1937.												Transferred to School.	No. of cases of insanitary conditions reported to Medical Officers of Health.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
				Registered Live Births	Registered Still-Births.	Notified.								Transfers from other Districts during the year.						Under ten days.												Over ten days and under one year.				One year and under five.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
						Live Births.				Stillborn.				By Midwives.	By Parents and Doctors.	Under ten days.	Over 10 days and under one year.	One year and under five.	Expectant Mothers.	Children		Expectant Mothers.	Children.		Expectant Mothers.	Children.						Under 1 year.	One year and under five.	Deaths.		Removals.		Deaths.	Removals.	Deaths.	Removals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
						Full term.	Premature	Full term.	Premature.	Under 1 year.	Between 1 & 5 years.	Under 1 year.	Between 1 & 5 years.							L.	I.		L.	I.		L.								I.	L.	I.	L.					I.	L.			I.	L.	I.	L.	I.	L.	I.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		Whole-time.	Part-time.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.	L.	I.		L.	I.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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MORTALITY AT DIFFERENT AGES FROM VARIOUS CAUSES.

The following table gives the mortality from various causes in different age groups in the Administrative County during 1938 :—

CAUSES OF DEATH	AGE AT DEATH											TOTAL
	Under 1	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 35	35 and under 45	45 and under 55	55 and under 65	65 and under 75	75 and over	
1. Typhoid and Paratyphoid Fevers ...	—	—	—	—	—	—	—	—	—	—	—	—
2. Measles ...	2	4	2	1	—	—	—	—	—	—	—	9
3. Scarlet Fever ...	1	—	—	1	—	—	—	—	—	—	—	2
4. Whooping Cough ...	14	6	6	—	—	—	—	—	—	—	—	26
5. Diphtheria ...	2	2	16	51	1	—	—	—	—	—	—	72
6. Influenza ...	5	1	4	1	11	12	23	22	24	16	23	142
7. Encephalitis Lethargica ...	—	—	—	—	1	2	—	2	4	3	1	13
8. Cerebro-spinal Fever ...	3	3	1	3	1	2	—	2	—	—	—	15
9. Tuberculosis of Respiratory System ...	1	—	1	9	91	86	80	41	43	16	4	372
10. Other Tuberculous Diseases ...	15	16	17	9	16	11	3	2	1	2	1	93
11. Syphilis ...	4	—	—	—	—	—	3	5	7	2	—	21
12. General Paralysis of the Insane, Tabes Dorsalis ...	—	—	—	—	—	—	6	7	5	1	—	19
13. Cancer, Malignant Disease ...	1	—	—	—	5	16	59	172	268	337	175	1033
14. Diabetes ...	—	—	—	1	4	3	4	8	26	42	24	112
15. Cerebral Hæmorrhage, etc. ...	—	—	—	—	1	1	9	45	114	155	147	472
16. Heart Disease ...	—	1	—	19	29	46	49	141	363	673	682	2003
17. Aneurysm ...	—	—	—	1	3	1	1	2	6	3	—	17
18. Other Circulatory Diseases ...	—	—	—	—	—	—	3	20	44	129	163	359
19. Bronchitis ...	25	2	1	3	3	5	8	11	38	66	100	262
20. Pneumonia (all forms)	120	47	24	15	26	42	60	77	103	74	45	633
21. Other Respiratory Diseases ...	4	1	2	3	—	7	3	13	16	13	21	83
22. Peptic Ulcer ...	—	—	—	—	3	2	9	16	20	11	3	64
*23. Diarrhœa, etc. ...	52	6	4	3	1	3	1	4	7	1	3	85
24. Appendicitis ...	—	—	1	15	7	8	3	6	8	6	1	55
25. Cirrhosis of Liver ...	—	—	—	—	—	—	1	2	11	10	—	—
26. Other Diseases of Liver, etc....	—	—	—	—	2	1	3	6	14	15	9	50
27. Other Digestive Diseases ...	5	5	1	10	5	9	9	18	27	30	26	145
27. Acute and Chronic Nephritis ...	1	1	—	5	9	6	18	29	43	67	28	207
29. Puerperal Sepsis ...	—	—	—	—	2	6	4	—	—	—	—	12
30. Other Puerperal Causes ...	—	—	—	—	4	8	15	1	—	—	—	28
31. Congenital Debility, Premature Birth, Malformations, etc.	415	4	1	3	4	—	—	—	1	—	—	428
32. Senility ...	—	—	—	—	—	—	—	—	1	59	351	411
33. Suicide ...	—	—	—	—	8	8	6	21	34	17	4	98
34. Other Violence ...	18	4	12	46	44	42	26	27	41	43	34	337
35. Other Defined Diseases ...	63	9	13	40	43	44	51	87	128	133	84	695
36. Causes ill-defined or unknown ...	—	1	—	—	—	—	—	—	—	3	6	10
Totals ...	751	113	106	239	324	371	457	787	1397	1927	1940	8412
Polio-myelitis ...	Special	—	causes included	in No. 35	above.	—	—	—	—	—	—	3

* In the tables at the end of the Report deaths from Diarrhœa at two years and over are included under "Other Digestive Diseases."